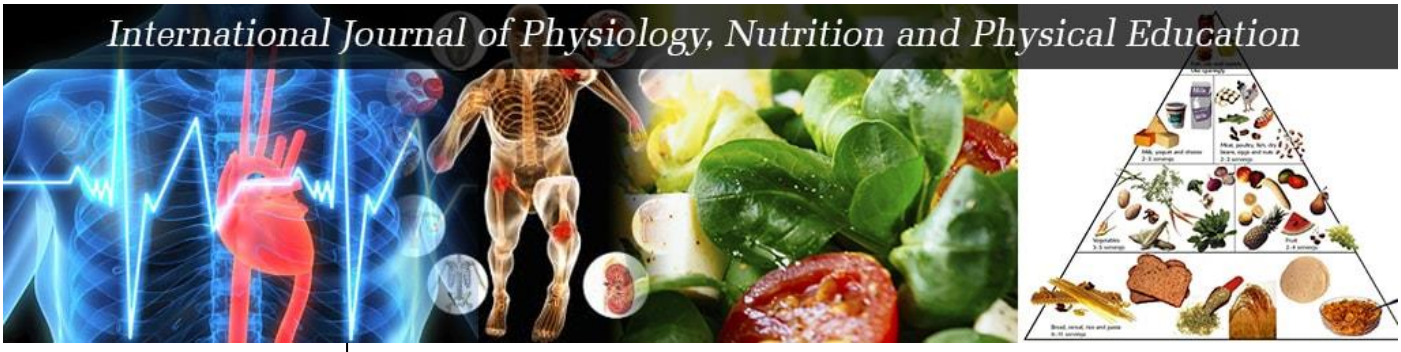

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Effect of interval training on endurance and playing ability of kho-kho players

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Abstract
The researcher studied on the effect of Interval Training on Endurance and Playing Ability of Kho-kho players. The purpose of the study is to find out the effect of interval training on endurance and playing ability of Kho-kho players. Researcher hypothesized that, there might be significant effect of interval training on endurance and playing ability of Kho-kho players. This study was delimitated to the 30 Kho-kho male players only. The age of the subjects ranged between 18-25 years. To collect the data pre-test and post-test on cardio-vascular endurance and playing ability of Kho-kho players. 30 Kho-kho male players were selected as subjects. The subjects selected by using simple random sampling method. On the basis of pre-test means researcher formed 2 homogeneous groups namely 1) Experimental group and 2) Control group after six weeks interval training on the Experimental group only again data was collected on cardio-vascular endurance and playing ability of Kho-kho players. 600 yard run/walk test was administrated to measure the Cardio-vascular endurance and 3 judges test was administrated to check the playing ability of Kho-kho players. To determine the significant difference in the means on the performance of Sprinters between the two groups as well as between the pre-test and post-test means of experimental and control group 't'-test was employed. To find out the significance difference, level of significance was set at 0.05 levels. Findings of the study were insignificant difference observed between the pre test and post test of control group in Cardio-vascular Endurance. Significant difference observed between the pre test and post test of experimental group in Cardio-vascular Endurance. Significant difference observed in post test of control and experimental groups in Cardio-vascular Endurance. Insignificant difference observed between the pre test and post test of control group in playing ability. Significant difference observed between the pre test and post test of experimental group in playing ability. Significant difference observed in post test of control and experimental groups in playing ability. Significant in pre and post test of experimental group also in post test of both the groups. Hence the researcher hypothesis is accepted.

Keywords: Kho-kho, interval training, playing ability, endurance

Introduction
Kho-Kho is a game where two sets of players i.e. chasers and runners, play the game. The result of the game depends upon the time spend by the runners and the points scored by the chasers. For getting point or to play better in Kho-Kho, players should be very much physically fit. Physically fit, in the sense, that he should be able to run fast, more agile, need of co-ordination, good strength, endurance etc. and to be a good Kho-Kho player good speed, agility, flexibility and quick speed of movements are required. If these qualities are improved by any means then the overall Kho-Kho playing ability can be improved.

Statement of the Problem
The problem is stated as, “Effect of Interval Training on Endurance and Playing Ability of Kho-kho players”.

Purpose of the Study
The purpose of the study is to find out the effect of interval training on endurance and playing ability of Kho-kho players.

Hypothesis

Researcher hypothesized that, there might be significant effect of interval training on endurance and playing ability of Kho-kho players.

Delimitations

1. The study was delimited to the male students only.
2. The age of the subjects ranged between 18-25 years.
3. The study was also delimited to 30 Kho-kho players.
4. To collect the data pre-test and post-test on cardio-vascular endurance and playing ability of Kho-kho players.

Methodology

30 Kho-kho male players were selected as subjects. The subjects selected for the study was from those who represented inter-collegiate tournaments and inter-university trials of SGB Amravati University by using simple random sampling method. On the basis of pre-test means researcher formed 2 homogeneous groups namely 1) Experimental group and 2) Control group after six weeks interval training on the Experimental group only again data was collected on cardio-vascular endurance and playing ability of Kho-kho players. 600 yard run/walk test was administrated to measured the Cardio-vascular endurance and 3 judges test was administrated to check the playing ability of Kho-kho players. 3 Judges gives max 10 marks to each player after observation of player's game.

Analysis of Data

To determine the significant difference in the means on the endurance and playing ability of Kho-kho players between the groups as well as with in the groups between the pre-test and post-test means of experimental and control group 't'-test was employed. To find out the significance difference, level of significance was set at 0.05 level. Findings of the statistical analysis have been shown in the following tables.

Table 1: Summary of Mean, Standard Deviation and t-ratio for the Pre-test and Post-test Data on Cardio-Vascular Endurance of Control and Experimental Groups of Kho-kho Players

		Mean	SD	MD	SE	t
Control	Pre-test	88.867	4.373	0.933	1.671	0.558@
	Post-test	87.933	4.773			
Experimental	Pre-test	89.667	3.994	4.733	1.200	3.945*
	Post-test	84.933	2.374			
Post-test	Control	87.933	4.773	3.000	1.376	2.180*
	Experimental	84.933	2.374			

@ Not significant at 0.05 Tab $t_{0.05\,(28)} = 2.048$

* Significant at 0.05 Tab $t_{0.05\,(14)} = 2.14$

The above table show that, significant difference found in Cardio-vascular endurance between the pre test and post test of experimental group (t = 3.945) because the calculated t-value are greater than the tabulated t-value of 2.144 at 0.05 level and 14 degree of freedom and but insignificant in control group (t = 0.558). Significant difference found in Cardio-vascular endurance between the control and experimental groups in post test (t = 2.180) because the calculated t-value are greater than the tabulated t-value of 2.048 at 0.05 level and 28 degree of freedom

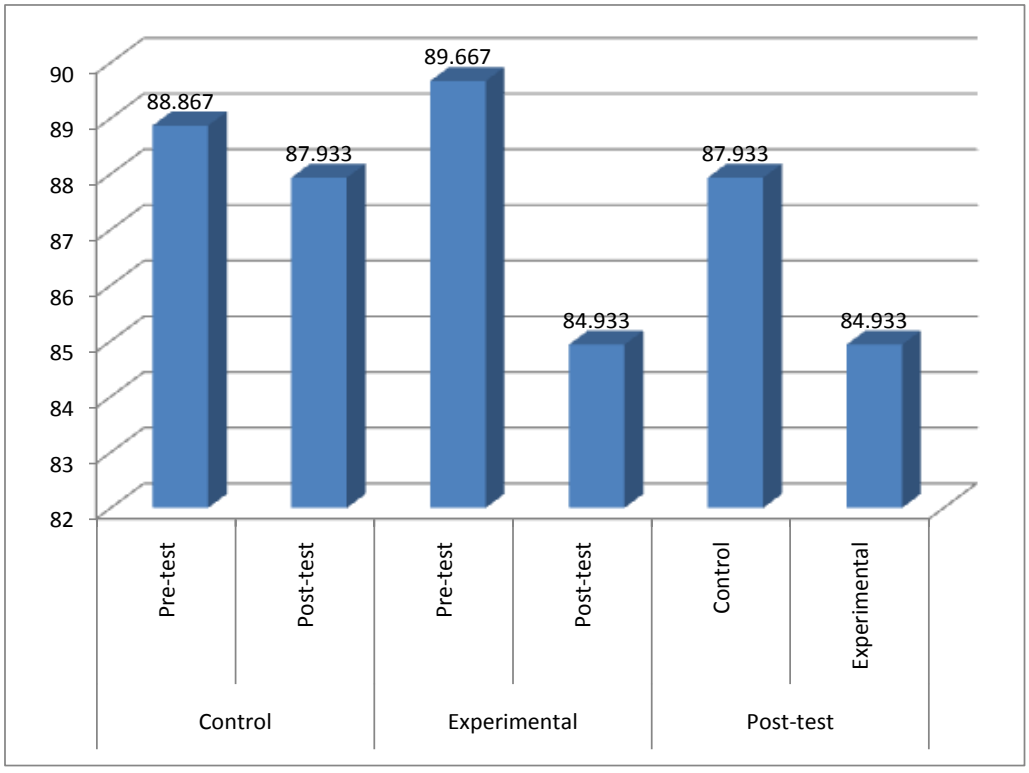

Fig 1: Showing Means for the Pre-test and Post-test Data on Cardio-Vascular Endurance of Control and Experimental Groups of Kho-kho Players

Table 2: Summary of Mean, Standard Deviation and t-ratio for the Pre-test and Post-test Data on Playing Ability of Control and Experimental Groups of Kho-kho Players

		Mean	SD	MD	SE	t
Control	Pre-test	20.267	1.792	0.600	0.635	0.945@
	Post-test	20.867	1.685			
Experimental	Pre-test	20.467	2.416	2.867	1.021	2.807*
	Post-test	23.333	3.132			
Post-test	Control	20.867	1.685	2.467	0.918	2.686*
	Experimental	23.333	3.132			

@ Not significant at 0.05 Tab $t_{0.05\,(28)} = 2.048$

* Significant at 0.05 Tab $t_{0.05\,(14)} = 2.144$

The above table show that, significant difference found in playing ability between the pre test and post test of experimental group (t = 2.807) because the calculated t-value are greater than the tabulated t-value of 2.144 at 0.05 level and 14 degree of freedom and but insignificant in control group (t = 0.945). Significant difference found in playing ability in post test (t = 2.686) between the control and experimental groups because the calculated t-value are greater than the tabulated t-value of 2.048 at 0.05 level and 28 degree of freedom

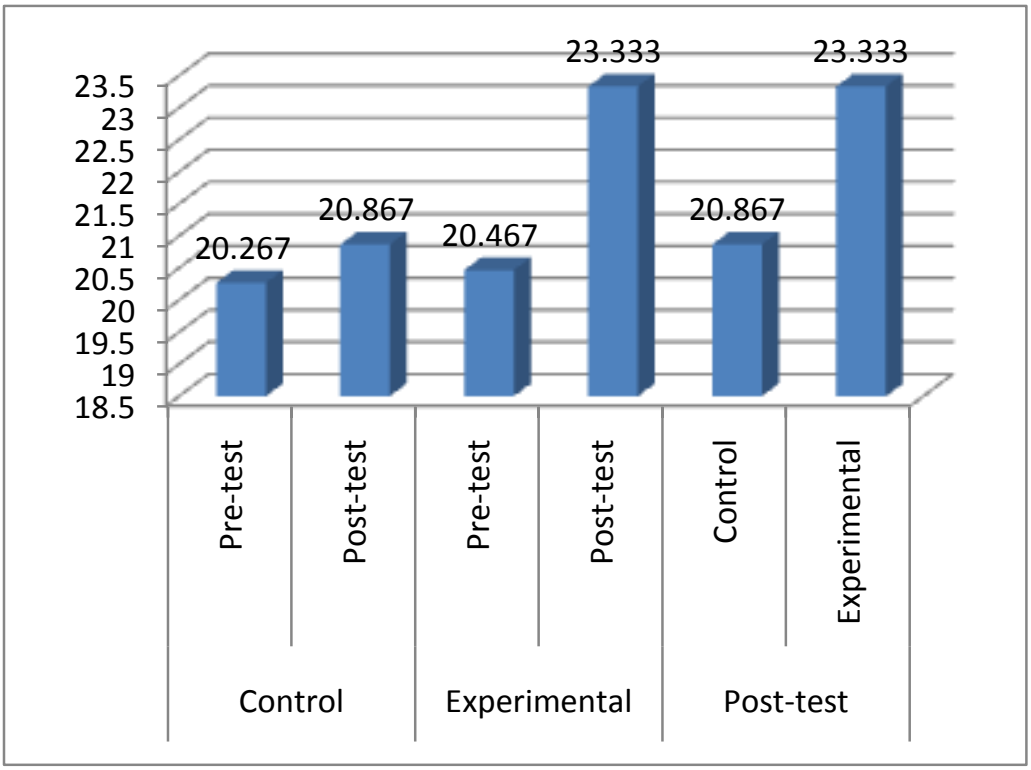

Fig 2: Showing Means for the Pre-test and Post-test Data on Playing Ability of Control and Experimental Groups of Kho-kho Players

Discussion on Findings

- Significant difference found in Cardio-vascular endurance between the pre test and post test of experimental group (t = 3.945) because the calculated t-value are greater than the tabulated t-value of 2.144 at 0.05 level and 14 degree of freedom and but insignificant in control group (t = 0.558).
- Significant difference found in Cardio-vascular endurance between the control and experimental groups in post test (t = 2.180) because the calculated t-value are greater than the tabulated t-value of 2.048 at 0.05 level and 28 degree of freedom.
- Significant difference found in playing ability between the pre test and post test of experimental group (t = 2.807) because the calculated t-value are greater than the tabulated t-value of 2.144 at 0.05 level and 14 degree of freedom and but insignificant in control group (t = 0.945).
- Significant difference found in playing ability in post test (t = 2.686) between the control and experimental groups because the calculated t-value are greater than the tabulated t-value of 2.048 at 0.05 level and 28 degree of freedom.

Justification of Hypothesis

From the findings it show the significant in pre and post test of experimental group also in post test of both the groups. Hence the researcher hypothesis is accepted.

Conclusion

On the basis of findings and statistical analysis it is concluded that

- Insignificant difference observed between the pre test and post test of control group in Cardio-vascular Endurance.
- Significant difference observed between the pre test and post test of experimental group in Cardio-vascular Endurance.
- Significant difference observed in post test of control and

experimental groups in Cardio-vascular Endurance.

- Insignificant difference observed between the pre test and post test of control group in playing ability.
- Significant difference observed between the pre test and post test of experimental group in playing ability.
- Significant difference observed in post test of control and experimental groups in playing ability.

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