



EFFECTS OF SPEED BASED TRAINING ON SELECTED SKILL RELATED VARIABLES OF KHO-KHO PLAYERS

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ABSTRACT

This study was designed to investigate the effects of speed-based training on selected skill related variables of Kho-Kho players. Twenty women Kho-Kho players were randomly selected from Department of Physical Education, Bharathiar University, Coimbatore. The subjects age ranged from 21 to 27 years. They were divided into two equal groups. The group-I was considered as experimental group (speed-based training group) and group-II was considered as control group. Pre-test was conducted on speed, agility, endurance for both the groups and the reading were carefully recorded in their respective unit as pre-test scores. After the pre-test, experimental group was treated with specific speed based training, for duration of 60 minutes for six days per week for period of twelve weeks. The control group was not treated with any special training. After twelve weeks of training post-test was conducted and the reading were carefully recorded in their respective units as post-test scores. The pre-test and post-test were taken for the analysis. The collected data on skill related variables due to twelve weeks speed based training was analysed by dependent 't' test with 0.05 level of significance. From the results of the study, it was found that there was a significant improvement on skill related variables of Kho-Kho players.

Keywords: Speed Based Training, Skill Related Variables, Kho-Kho players.

INTRODUCTION

Kho-Kho is an indigenous game having its roots in Maharashtra. Kho-Kho is one of the most ancient forms of outdoor sports and there is no proof about the exact origin of the game and its originator. It was primarily invented for developing self defends attack the game was basically played by children in the simplest form of chasing and running. It is played on a rectangular court, between two teams of twelve players each, of which 9 take the field and 3 are reserves. Energy for absolute speed is supplied by the anaerobic galactic pathway. The anaerobic (without lactate) energy system is best challenged as an athlete approaches top speed between 30 and 60 meters while running at 95% to 100% of maximum. This speed component of anaerobic metabolism lasts for approximately eight seconds and should be trained when no muscle fatigue is present (usually after 24 to 36 hours).

The technique of sprinting must be rehearsed at slow speeds and then transferred to runs at maximum speed. The stimulation, excitation and correct firing order of the motor units, composed of a motor nerve (neuron) and the group of muscles that it supplies, makes clear but it possible for high frequency movements to occur. The whole process is not very the complex coordination and timing of the motor units and muscles most certainly must be rehearsed at high speeds to implant the correct patten speed is highly specific and to achieve it we should ensure that: flexibility is developed and maintained all year round strength and speed are developed in parallel skill development (technique) is pre-learned, rehearsed and perfect before it is done at high speed levels speed training is performed by using high velocity for brief intervals. This will ultimately bring into play the correct neuromuscular pathways and energy sources used it is important to remember that the improvement of running speed is a complex process that is controlled by the brain and nervous system. In order for a runner to move more quickly, the leg muscles of course have to contract more quickly, but the brain and nervous system have to learn to control these faster movements efficiently. If you maintain some form of speed training throughout the year, your muscles and nervous system do not lose the feel of moving fast and the brain will not have to re-learn the proper control patterns at a later date. In the training week, speed work should be carried out after a period of rest or light training. In training session, speed work should be conducted after the warm up and any other training should be of a low all speed workouts should include an appropriate warm up and cool down. The athletes start in a variety of different positions-lying face down, lying on their backs ,in a push up or sit up position, kneeling or seated .The coach standing some 30 meters from the group then gives a signal for everyone to jump up and run towards him/her at slightly faster than race pace. Repeat using various starting positions and with the coach standing in different places so that the athletes have to change directions quickly once they begin to run.

STATEMENT OF THE PROBLEM

The purpose of this study is to find out the effect of speed based training on selected skill related variables of Kho-Kho players.

HYPOTHESIS

- It was hypothesized that there would be significant changes through speed based training from baseline to post treatment on skill related variables of Kho-Kho players.
- It was hypothesized that there would be significant changes through speed based training on selected skill related variables of control group of Kho-Kho players.

EXPERIMENTAL DESIGN

The selected twenty subjects were randomly divided into two equal groups consist of 10 each such as experimental group and control group. Pre-test was conducted on speed, agility and endurance. For the two groups and the reading were carefully regarded in their respective unit as pre-test score. After pre-test experimental group I was treated with speed based training, for a duration of 60 minutes, six days per week for a period of twelve weeks. The control group II was not treated with any special training. After twelve weeks of training post test was conducted and the reading were carefully regarded in their respective units as post test score. The pre and post test were taken for analysis.

TRAINING PROGRAM

The training program was lasted for 60 minutes per session in a day, 6 days in a week for a period of twelve week duration. This 60 minute included 5 minutes warm up 5 minutes warm down remaining 50 minutes allotted for speed based training programme. Every two week of training 5% of intensity was increased from 65% to 75% of work load. The training load was increased from the maximum working capacity of the subjects.

STATISTICAL TECHNIQUE

Descriptive statistics the 't' test will be used to find out the significance among the mean differences, whenever the 't' ratio for fixed to test hypothesis, mean differences in all cases 0.05 level of significance.

RESULT

Table I: COMPUTATION OF 't' RATIO BETWEEN PRE AND POST TEST MEANS OF CONTROL GROUP ON SKILL RELATED VARIABLES

CONTROL GROUP					
Skill related variables	Pre/post test	mean	Std.Deviation	Std error mean	't' Ratio
Speed	Pre-test	7.91	.504	.159	1.55
	Post-test	7.74	.593	.187	
Agility	Pre-test	14.12	.389	.123	1.34
	Post-test	14.12	.394	.124	
Endurance	Pre-test	1780	271.57	85.88	1.76
	Post-test	1770	260.39	82.34	

*Significant at 0.05 level of confidence (2.26), 1 and 9.

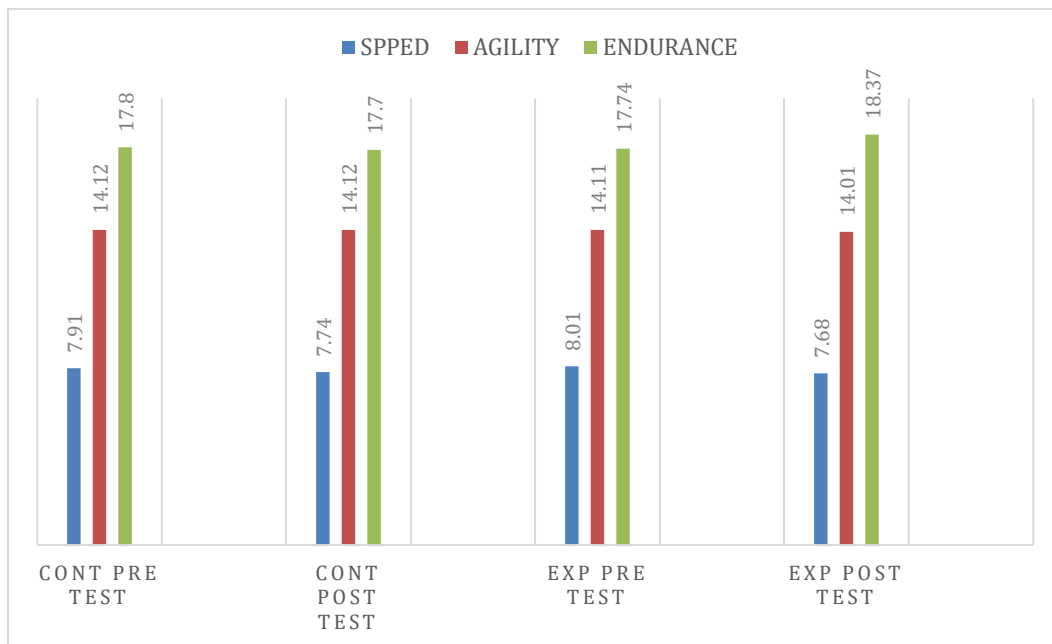
Table I reveals that the computation of 't' ratio between pre and post test means of control group on skill related variables. The 't' ratio on speed, agility and endurance are 1.45, 1.34 and 1.76 respectively. The required table value was 2.26 for the degrees of freedom 9 at 0.05 level of signification. Since the obtained 't' ratio values were less than the table value, it was found statistically insignificant.

Table II : COMPUTATION OF 't' RATIO BETWEEN PRE AND POST TEST MEANS OF EXPERIMENTAL GROUP ON SKILL RELATED VARIABLES

EXPERIMENTAL GROUP					
Skill related variables	Pre/post test	Mean	Std.Deviation	Std error mean	't' Ratio
Speed	Pre-test	8.01	.503	.159	6.08
	Post-test	7.68	.601	.190	
Agility	Pre-test	14.11	.389	.123	4.29
	Post-test	14.01	.432	.136	
Endurance	Pre-test	1774	262.98	83.16	8.44
	Post-test	1837	267.50	84.59	

*Significant at 0.05 level of confidence (2.26), 1 and 9.

Table II reveals that the computation of 't' ratio between pre and post test means of experimental group on skill related variables. The 't' ratio on speed, agility, endurance and leg explosive power are 6.08, 4.29 and 8.44 respectively. The required table value was 2.26 for the degrees of freedom 9 at 0.05 level of signification. Since the obtained 't' ratio values were greater than the table value, it was found statistically significant.



DISCUSSIONS ON FINDINGS

During the training period the experimental group underwent the training of selected suitable conditioning exercises for twelve weeks of period in addition to their daily routine activities as per the curriculum. Experimental group underwent training program on six days per week for period of twelve weeks. The maximum duration of training session in all the days lasted for 60 minutes approximately. All the subjects involved in this study were carefully monitored throughout training program. In the control group there in no significant different because they were not given any treatment other their daily activity. The subjects chosen for the experimental group was not given any special physical exercise or any other conditional training than treatment factors. Thus, it was concluded that any improvement in their performance was on account of the treatment given. In the speed of obtained 't' ratio value was greater than the table 't' value, it shows that there was a significant difference that exists between pre test and post test on speed. In the agility of obtained 't' ratio value was greater than the table 't' value, it shows that there was a significant difference that exists between pre test and post test on

agility. In the endurance obtained 't' ratio value was greater than the table 't' value, it shows that there was a significant difference that exists between pre test and post test on endurance. Hence there is the significant improvement on the variables such as speed, agility, endurance by giving the speed based training for 6 days in a week for the period of twelve weeks.

DISCUSSION ON HYPOTHESIS

The hypothesis of this study stated that there would be significant improvement on physical fitness component of women Kho-Kho players due to the influence of speed based training. From the result of the present study, it was observed that there was a significant improvement in skill related variables due to speed based training. Hence the researcher's hypothesis was accepted.

CONCLUSIONS

Based on the results of the study following conclusion have been arrived

- There was a significant improvement in speed of women Kho-Kho players due to the influence of speed based training.
- There was a significant improvement in agility of women Kho-Kho players due to the influence of speed based training.
- There was a significant improvement in endurance of women Kho-Kho players due to the influence of speed based training.

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