



EFFECT OF EXTENSIVE INTERVAL TRAINING ON MUSCULAR ENDURANCE AMONG KABADDI PLAYERS

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ABSTRACT

The purpose of the study was to find out the effect of extensive interval training on muscular endurance among kabaddi players. Twenty four (24) kabaddi players from south Travancore Hindu College, Nagercoil and Scott Christian College, Nagercoil were selected randomly as subjects. The age of the subjects ranged from 19 to 25 years. The players those who participated in the Manonmaniam Sundaranar University Inter Collegiate Kabaddi Tournament were selected randomly as subjects for the study. The selected subjects were divided into two groups. Group I underwent extensive interval training and Group II acted as control. The experimental group (extensive interval training) was subjected to extensive interval training for alternative three days for up to six weeks. The extensive interval training was selected as independent variable and the criterion variable muscular endurance were selected as dependent variable and the selected dependent variable were assessed by the standardized test items. Muscular endurance was assessed by Bent knee Sit ups test and the unit of measurement in numbers. The experimental design selected for this study was pre and post test randomized design. The data were collected from each subject before and after the training period and statistically analyzed by using dependent 't' test and analysis of covariance (ANCOVA). It was found that there was a significant improvement and significant different exist due to the effect of extensive interval training on muscular endurance among kabaddi players.

KEYWORDS : Extensive interval training, Muscular endurance and kabaddi players.

INTRODUCTION

The interval training is an efficient and challenging form of conditioning. The interval training as a programme of repeated running with a set interval of restful, jogging after each run. The period between run must be long enough to allow the athlete same time to recover from previous run but long enough to afford him complete recovery. Aerobic metabolism with low intensity over longer periods denotes extensive training. In interval training you run fast over a short distance several times, with a predetermined recovery period, or interval, of slow jogging between the fast runs which develops some anaerobic resistance. The key to this type of training is the recovery interval. Interval training is based on the premise that a greater amount of intense work can be accomplished if the work is interspersed with periods of rest. During an interval-training workout, an individual performs a prescribed amount of work in a specified time for a set number of times (Novich and Taylor, 1993).

The extensive interval training constitutes the intermittent variation of exertion and active recovery periods within a training unit. Characteristics of the extensive interval method are medium or large exertion periods within the basic endurance range or within the strength endurance range with the duration of the

recovery periods being half as long as those of the exertion periods. It is important to note that the recovery periods must not result in full recovery.

METHODOLOGY

To achieve the purpose, twenty four (24) college students studying from South Travancore Hindu College, Nagercoil and Scott Christian College, Nagercoil were selected randomly as subjects. The subjects those who are represented the Manonmaniam Sundaranar University Inter Collegiate Kabaddi Tournament were selected randomly as subjects. The age of the subjects ranged from 19 to 25 years. They were assigned randomly into two groups. Group I underwent Extensive interval training and Group II acted as control of twelve subjects each. The experimental group was subjected to the Extensive interval training during evening hours for three days and group II acted as control. The Extensive interval training was selected as Independent variable and the criterion variable muscular endurance was selected as dependent variable and the selected dependent variable was assessed by the standardized test items. Muscular endurance was assessed by Bent Knee Sit ups test and the unit of measurement in numbers. The experimental design selected for this study was pre and post test randomized design. The data were collected from each subject before and after the training period and statistically analyzed by using dependent 't' test and analysis of covariance (ANCOVA).

RESULTS AND DISCUSSIONS

The data pertaining to the variable in this study were examined by using dependent 't' test to find out the significant improvement and analysis of covariance (ANCOVA) for variable in order to determine the difference and tested at .05 level of significance. The analysis of dependent 't' test on data obtained for muscular endurance of the pre test and post test means of experimental and control groups have been analyzed and presented in Table I.

TABLE- I

MEAN AND DEPENDENT 't' TEST OF EXPERIMENTAL AND CONTROL GROUPS ON MUSCULAR ENDURANCE

Variable	Mean	Extensive Interval Training	Control Group
Muscular Endurance	Pre test Mean	43.42	42.17
	Post test Mean	44.83	42.08
	't' test	7.34*	1.00

*Significant at 0.05 level of confidence (11) = 2.201

The obtained 't' ratio value on muscular endurance of experimental group is higher than the table value, it is understood that the Extensive Interval training has made significant improvement on muscular endurance. However, the control group has not made significant improvement as the obtained 't' value is less than the table value, because it was not subjected to any specific training. The analysis of covariance on the data obtained on muscular endurance due to the effect of Extensive Interval training and control groups have been analysed and presented in Table II.

TABLE- II

ANALYSIS OF COVARIANCE OF EXPERIMENTAL AND CONTROL GROUPS ON MUSCULAR ENDURANCE

Variable	Adjusted Post Test Means		Source of Variance	SS	df	Mean Squares	'F'- Ratio
	Extensive Interval Training	Control Group					
Muscular endurance	44.28	42.64	Between	14.59	1	14.59	64.88*
			Within	4.72	21	.225	

*Significant at .05 level of confidence, df (1, 21) = 4.32

Table II shows that the adjusted post means of experimental group and control group are 44.28 and 42.64 respectively. The obtained 'F' ratio value is 64.88 which are greater than the table value 4.32 with df 1 and 21 required for significant at 0.05 level. Since the obtained value of 'F' ratio is higher than the table value, it indicates that there is significant difference has made among the adjusted post- test means of Extensive Interval training group and control group on muscular endurance.

The Extensive Interval training influences the significant difference on muscular endurance.

CONCLUSIONS

1. The Extensive Interval training had significantly improved the muscular endurance.
2. There was significant difference among the adjusted post – test means of Extensive Interval training and control group on muscular endurance.

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