



INFLUENCE OF YOGA WITH PILATES TRAINING ON FLEXIBILITY AND CORE STRENGTH AMONG KABADDI PLAYERS

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Abstract

The purpose of the study was to find out the effect of Yoga with pilates training on flexibility and core strength among kabaddi players. To achieve the purpose of this study, 20 male kabaddi players are randomly selected as subjects from the Chennai, India. Their age ranged from 17 to 21 years. The selected participants were randomly divided into two groups such as Group 'A' underwent Yoga with pilates training (n=10) and Group 'B' acted as control group (n=10). Group 'A' underwent Yoga with pilates training for three alternative days and one session per week and each session lasted for an hour for six weeks. Control group was not exposed to any specific training but they were participated in regular activities. The data on flexibility and core strength were collected by administering by sit and reach and plank tests. The pre and post tests data were collected on selected criterion variables prior and immediately after the training programme. The pre and post-test scores were statistically examined by the dependent 't'-test and Analysis of Co-Variance (ANCOVA) for each and every selected variable separately. It was concluded that the Yoga with pilates training group had shown significantly improved in flexibility and core strength. However the control group had not shown any significant improvement on any of the selected variables such as flexibility and core strength.

Keywords: Pilates training and Kabaddi.

INTRODUCTION

Pilates may sound intimidating, but it's an accessible way to build strength in core muscles for better posture, balance and flexibility. Pilates is a method of exercise that consists of low-impact flexibility and muscular strength and endurance movements (Herrington & Davies 2005). Pilates emphasizes use of the abdominals, lower back, hips and thighs. Pilates is named for its creator, Joseph Pilates, who developed the exercises in the early 1900s.

A Pilate's routine typically includes 25 to 50 repetitive strength training exercises. Pilates is similar to calisthenics, such as sit-ups and pushups. In fact, some people call Pilates the ultimate form of calisthenics. Pilates called his method "Contrology" (Pilates, 2015). The benefits of the Pilates training are, to improved core strength, stability, posture, balance and flexibility (Segal, Hein, & Basford, 2004).

STATEMENT OF THE PROBLEM

The purpose of the study was to find out the effect of Yoga with pilates training on flexibility and core strength among kabaddi players.

METHODOLOGY

The purpose of this study was to find out the effect of Yoga with pilates training on flexibility and core strength among kabaddi players. To achieve the purpose of the study twenty male kabaddi players were randomly selected from Chennai and their age ranged from 17 to

21 years. The researcher reviewed the available scientific journals, periodical, magazine, e-resources and research paper. Taking into consideration feasibility criteria, availability of the instrument and relevance of the variable of the present study the following dependent variables namely flexibility and core strength were selected. Similarly Yoga with pilates' training was chosen as independent variable. The flexibility and core strength were assessed by sit and reach and plank tests respectively.

This study was conducted to determine the possibility cause and effects of Yoga with pilates training on flexibility and core strength among kabaddi players. The subjects were divided into two equal group consists of 10 each and named as experimental group (Group-A) and control group (Group-B). Group-A (n=10) underwent Yoga with pilates training and Group B acted as control group. The control group was not given any special treatment and the experimental group was given Yoga with pilates training for three alternative days per week, for a period of six weeks. The related group research design was used in this study. The collected data from the two groups prior to and after the experimental treatments on flexibility and core strength were statistically analyzed by using the statistical technique of dependent 't' test and analysis of covariance (ANCOVA). In all the cases 0.05 level of confidence was fixed as a level of confidence.

ANALYSIS OF THE DATA

The effect of Yoga with pilates training on flexibility and core strength were analyzed and presented below.

TEST OF SIGNIFICANCE

This is the crucial portion of the thesis in arriving at the conclusion by examining the statistical hypothesis. The procedure of testing the hypothesis in accordance with the results obtained in relation to the level of

confidence which was fixed at 0.05 levels, was considered necessary for this study.

COMPUTATION OF 't'-TEST

The primary objective of the paired 't' ratio is to describe the differences between the initial and final scores. Thus the obtained results has been interpreted and presented below.

TABLE - I
THE PRE AND POST TEST SCORES ON SELECTED VARIABLES
OF YOGA WITH PILATES TRAINING AND CONTROL GROUP

Groups	Variables	Pre-Test Mean	Post-Test Mean	Mean difference	't' Ratio
Yoga with pilates training	Flexibility (CM)	21.34	27.85	6.51	6.38*
Control Group		20.34	20.89	0.55	0.87
Yoga with pilates training	Core Strength (Seconds)	138.12	164.23	26.11	11.31*
Control Group		128.37	132.64	4.27	1.35

* Significant at 0.05 level

In table-I the obtained 't' ratios of Yoga with pilates training are 6.38 and 11.31 for flexibility and core strength respectively. The obtained 't' ratios on the selected variables are found to be greater than the table value of 2.26 for 9 degrees of freedom. It is found to be significant. The result shows statistically significant and explains its effect positively. In table-I also shows that the obtained 't' ratios 0.87 and 1.35 for body flexibility and core strength respectively. The obtained 't' ratios on

the selected variables are found to be lesser than the table value of 2.26 for 9 degrees of freedom. It is found to be insignificant.

COMPUTATION OF ANALYSIS OF COVARIANCE

The descriptive measures and the results of analysis of covariance on the criterion measures were given in the following tables.

TABLE - II
COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE ON BODY FLEXIBILITY AND CORE
STRENGTH OF EXPERIMENTAL AND CONTROL GROUPS

	Experimental Group	Control Group	Source of Variance	Sum of Squares	df	Mean Square	F
Flexibility (Adjusted Post Mean)	27.29	20.81	BG	163.89	1	163.89	21.34*
			WG	130.56	17	7.68	
Core Strength (Adjusted Post Mean)	162.67	131.08	BG	272.04	1	272.04	18.27**
			WG	253.13	17	14.89	

* Significant at 0.05 level. Table value for df 1, 17 was 4.21

The above table indicates the adjusted mean value on body flexibility and core strength of experimental and control groups were 27.29 & 20.81 and

162.67 & 131.08 respectively. The obtained F-ratio of 21.34 and 18.27 was greater than the table value 4.21 for the degrees of freedom 1 and 17 required for significance

at 0.05 level of confidence. The result of the study indicates that there was a significant difference exist

among experimental and control groups on flexibility and core strength.

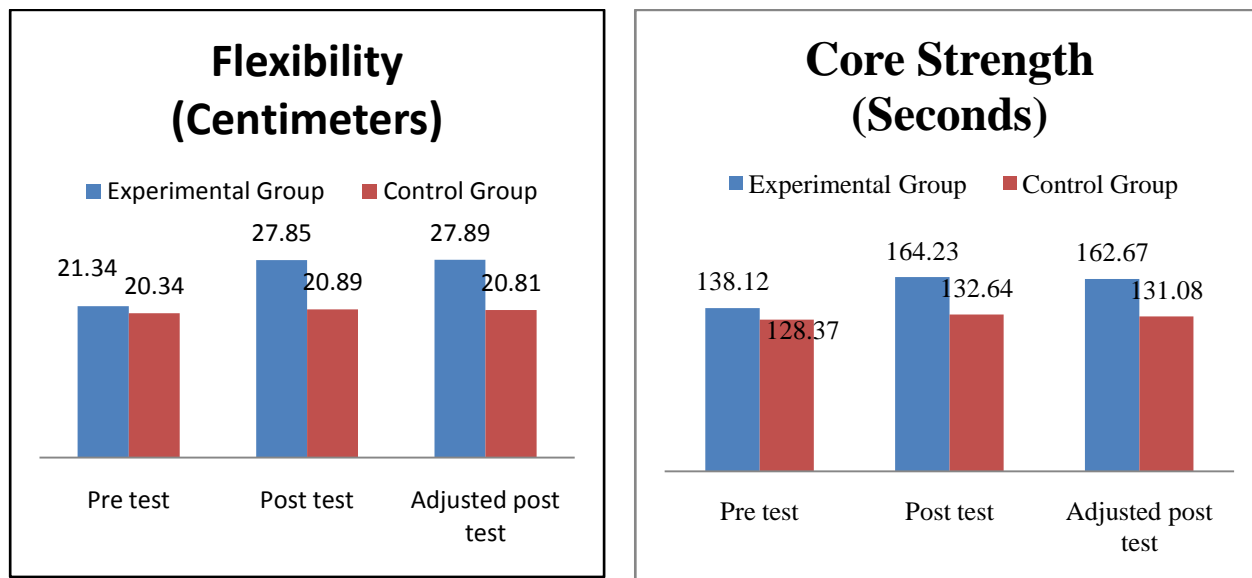


FIGURE I
PRE TEST, POST TEST AND ADJUSTED POST TEST MEAN VALUES OF YOGA WITH PILATES TRAINING AND CONTROL GROUPS ON FLEXIBILITY AND CORE STRENGTH

DISCUSSION ON FINDINGS

The result of the study indicates that there was a significant improvement on flexibility and core strength due to the effect of Yoga with pilates training among kabaddi players when compared to control group.

It is inferred from the literature and from the result of the present study. That systematically designed training develops dependent variables are very importance for better performance in almost all sports and games. Hence it is concluded that systematically designed training may be given due recognition and implemented properly in the training programs of all the discipline in order to achieve maximum performance.

CONCLUSIONS

1. There was significant improvement on flexibility and core strength due to the effect of Yoga with pilates training among kabaddi players.
2. However the control group had not shown any significant improvement on any of the selected variables.

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