

**AFFLUENCE OF YOGIC EXERCISES ON SELECTED PHYSICAL AND  
PHYSIOLOGICAL VARIABLES AMONG COLLEGE WOMEN**

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**ABSTRACT**

The purpose of the study was to find out the effect of yogic exercise on selected Physical and Physiological variables among College women. To achieve this purpose, 30 women students studying PG diploma courses in yoga from the Center for yoga studies, Annamalai University were randomly selected as subjects. The age of the subjects were ranged from 18 to 25 years. The subjects were further classified at random into two equal groups of 15 subjects each. Group - I underwent yogic exercise for five days per week for eight weeks and group - II acted as control. The selected criterion variables namely muscular endurance, cardio-respiratory endurance, breath holding time and resting pulse rate were assessed before and after the training period. The collected data were statistically analysed by using Analysis of Covariance (ANCOVA). From the results of the study it was found that there was a significant change on muscular endurance, cardio-respiratory endurance, breath holding time and resting pulse rate among the yogic exercise group when compared with the control group.

Key words: Yogic exercise, Physical and Physiological variables, muscular endurance, cardio-respiratory endurance, breath holding time, resting pulse rate.

## **Introduction**

Physical fitness is not a static factor and it varies from individual to individual and in the same person from time to time depending on various factors (Lawrence, 2002). Physical fitness is one of the basic requirements of life and total fitness is essential (fitness) for healthy living (Hick, 1972). The concept of physical fitness in general athletic terms means the capability of the individual to meet the varied physical and physiological demands made by a sporting activity without reducing the person to an excessively fatigued state (Boucher, 1993). Physical training is any bodily activity that enhances or maintains physical fitness and overall health and wellness. It is performed for various reasons including strengthening muscles and the cardiovascular system, honing athletic skills, weight loss or maintenance, as well as for the purpose of enjoyment (Hardyal, 1991). Yoga is the oldest known science of self development. Yoga is the science of right living as such, is intended to be incorporated in daily life. It works in all aspects of the person: physical, mental, emotional, psychic and spiritual. Yoga aims at bringing the different functions into perfect coordination so that they work for the good of the whole body. Yoga focuses on harmony between mind and body. Yoga derives its philosophy from Indian metaphysical beliefs. The ultimate aim of yoga is to strike a balance between mind and body and attain self enlightenment. According to Swami Satya and Saraswathi, 'Yoga is not an ancient myth buried in oblivion. It is the most valuable inheritance of the present. It is the essential need of today and the culture of tomorrow. Yoga is an ancient system of physical and psychic that originated Indus valley civilization in south Asia. The fundamental purpose of yoga is to foster harmony in the body, mind and environment.

## **Methodology**

The purpose of the study was to find out the effect of yogic exercises on selected Physical and Physiological variables among College women. To achieve this purpose, 30 male students studying PG diploma courses in yoga from the Center for yoga studies, Annamalai University were randomly selected as subjects. The age of the subjects ranged from 18 to 25 years. The subjects were further classified at random into two equal groups of 15 subjects each. Group - I underwent yogic exercise for five days per week for eight weeks. On every training session the subjects practiced pranayama, asanas, and suryanamaskar followed by relaxation techniques for 45 minutes under the instruction and supervision of the investigator and group - II did not participate in the training programme apart from their regular activities and acted as control. The

subjects were assessed on selected criterion variables namely muscular endurance, cardio-respiratory endurance, breath holding time and resting pulse rate before and after the training period. The selected variables were measured by using standard testing procedures (Muscular Endurance: Sit ups Test, Cardio respiratory Endurance: Coopers 12 Minutes run/walk test, holding the breath for time: standard stop watch, resting pulse rate: radial pulse). The data collected from yogic exercise and control groups before and after completion of the training period on selected variables were statistically examined by applying analysis of covariance (ANCOVA). All the data were analyzed using SPSS statistical package. The level of confidence was fixed at .05 level of significance.

The Analysis of covariance on muscular endurance, cardio-respiratory endurance, breath holding time and resting pulse rate of the pre test and post test scores of yogic exercise and control group have been analyzed and presented in the below table.

**ANALYSIS OF CO VARIANCE ON SELECTED VARIABLES**  
**AMONG YOGIC EXERCISE AND CONTROL GROUPS**

Variable name	Test	Yogic exercise group	Control Group	SO V	Sum of square	df	Mean square	'F' Ratio
Muscular endurance	Adjusted post- test mean	38.59	34.59	B:	130.35	1	130.35	551.55*
				W:	8.74	27	0.32	
Cardio respiratory endurance	Adjusted post- test mean	2478.00	2305.00	B:	1315.32	1	1315.32	92.24*
				W:	5139.45	27	190.35	
Breath holding time	Adjusted post- test mean	58.50	52.00	B:	302.81	1	302.38	5.72*
				W:	1429.38	27	52.94	
Resting pulse rate	Adjusted post- test mean	64.40	69.55	B:	394.25	1	394.25	6.10*
				W:	1745.01	27	52.94	

\*Significant at .05 level of confidence (The table value required for significance at .05 level of confidence for df 1 and 28, 1 and 27 was 4.20 and 4.21 respectively)

**Results**

The findings of the study shows that significant difference exists between yogic exercise group and control group on muscular endurance, cardio respiratory endurance, breath holding time and resting pulse rate, since the obtained 'F' ratio of 551.55, 92.24, 5.72, and 6.10 respectively for adjusted post test means were greater than the required table value 4.21 for significance at 0.05 level of confidence with df 1 and 27. The result of the study shows that yogic exercise has its influence in the performance related variables among cricketers.

### **Conclusions**

Based on the results of the study, it is concluded that there was a significant difference between yogic exercise group and control group on muscular endurance, cardio respiratory endurance, breath holding time and resting pulse rate. There was a significant increase on selected criterion variables namely muscular endurance, cardio respiratory endurance, breath holding time and significant decrease in resting pulse rate after eight weeks of yogic practice.

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