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Influence of Yogic Practices On Resting Pulse Rate, Breath Holding Time And Cardio Respiratory Endurance Of College Basketball Players

KEYWORDS: Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance

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ABSTRACT *Aim of this study was to find out the influence of yogic practices on Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance of College Basketball players. The study was conducted on thirty College men Basketball players who were studying JJ College of Arts and Science, Pudukkottai District, Tamilnadu, India. Subjects were randomly assigned equally into two groups, Group –I underwent Yogic Practices Group (n = 15) and Group II (n=15) acted as control Group. The data was collected from the Experimental and Control Groups were statically examined with Analysis of covariance (ANCOVA). Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance showed significant difference between the groups.*

INTRODUCTION

In Sanskrit, Yoga means, "to unite". Primarily an exercise in moral and mental cultivation of poses and practices that aim towards harmonizing your mind, body and soul to achieve a state of oneness with the universe. It is a spiritual practice that does not subscribe nor promote any particular faith; hence all can practice it. A lifestyle choice by many, the universally timeless philosophies of yoga can be incorporated into any belief system. Stress, anxiety, ill health, unhappiness and anger can be transformed into peacefulness, vibrant health, service and love towards all creation. The techniques are important in this process but the goal should be kept firmly in mind (B.K.S.Iyengar, 1981).

We are today faced with numerous debilitating chronic illnesses related to aging, environment, and hedonistic lifestyle, such as cancer, diabetes, osteoporosis, and cardiovascular diseases as well as many incurable diseases such as AIDS. Modern medical advancements provide the rationale for the integration of various traditional healing techniques including Yoga to promote healing, health, and longevity. It is imperative that advances in medicine include the wholistic approach of Yoga to face the current challenges in health care. The antiquity of Yoga must be united with the innovations of modern medicine to improve quality of life throughout the world.

At first glance, allopathic medicine and Yoga may seem to be totally incompatible and in some ways even antagonistic to each other. Practitioners of either system are often found at loggerheads with one another in typical modern one-upmanship. However it is my humble endeavor as a student of both these life giving, life changing and life saving sciences, to find the similarities that exist between them and build a bridge between these two great sciences of today's world(Garfinkel, M. S., and et.al. (1994).

It would of course be much easier to build a bridge between Yoga and Ayurveda as both share many similarities of concepts such as the Trigunas, Tridoshas, Chakras and Nadis. They also understand that a healthy balance between body, mind and soul leads to total health. Diet and behavior are given importance in both systems and the ultimate goal of both is the attainment of Moksha.

METHODOLOGY

The study was conducted on College men Basketball players who were studying JJ College of Arts and Science, Pudukkottai District, Tamilnadu, India. Subjects were randomly assigned equally into two groups, Group –I underwent Yogic Practice Group (n = 15) and Group II (n=15) acted as control. The training period was limited to 12 weeks. All the two groups were tested on selected criterion variables such as Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance prior to and immediately after the training programme. Resting Pulse Rate was assessed by Radial Pulse Method, Breath Holding Time was assessed by Stop Watch Manuel method, Cardio Respiratory Endurance was assessed by Cooper's 9 Minutes Run/walk Test.

RESULTS AND DISCUSSION

The data collected from the Experimental group and Control group prior and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post test means on selected criterion variables separately. The level of significance was fixed at .05 level of confidence to test the 'f' ratio obtained by analysis of covariance.

Table – I THE SUMMARY OF PRE AND POST TEST MEAN ON RESTING PULSE RATE, BREATH HOLDING TIME AND CARDIO RESPIRATORY ENDURANCE OF YOGIC PRACTICE AND CONTROL GROUPS

Criterion variables	Pre Test and Post Test Mean	Yogic Practice group	Control group
Resting Pulse Rate	Pre test mean	81.07	74.6
	Post test mean	74.53	74.53
Breath Holding Time	Pre test mean	22.77	22.04
	Post test mean	26.48	21.99
Cardio Respiratory Endurance	Pre test mean	1780	1787.33
	Post test mean	2040.67	1774.00

Table – I shows that pre and post test mean of Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance between Yogic Practices group and Control Group. It was concluded that Yogic Practices group had significant improvement in the performance of Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance. However control group had no significant improvement in the performance of selected variables.

The analysis of covariance on of Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance of Yogic Practices group and Control group have been analyzed and presented in Table – II.

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Table – II ANALYSIS OF COVARIANCE ON CRITERION VARIABLES OF YOGIC PRACTICES GROUP AND CONTROL GROUP

Criterion Variable	Adjusted Post Test means		Source of variance	Sum of square	df	Mean squares	'f' - ratio
	Yogic Practices Group	Control group					
Resting Pulse Rate	74.6	81.07	B	313.63	1	313.63	95.43*
			W	88.74	27	3.29	
Breath Holding Time	26.18	23.30	B	107.78	1	107.78	114.76*
			W	25.36	27	0.94	
Cardio Respiratory Endurance	2042.44	1772.22	B	546026.25	1	546026.25	63.10*
			W	233631.31	27	8653.03	

*** Significant at .05 level of confident.**
Table value required for significance at .05 level with df 1 and 27 is 4.21

From table – II, the obtained value of 'f' - ratio for Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance, for adjusted post test means were more than the table value of 4.21for df 1 and 27 required for significant at 0.05 level of confidence. The results of the study indicated that significant differences exist among the adjusted post test means of experimental and control groups on the development of Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance.

Conclusion

From the analysis of the data, the following conclusions were drawn.

The Yogic Practices group improved significantly on Resting Pulse Rate, Breath Holding Time and Cardio Respiratory Endurance, when compared to the control group.

REFERENCE

Garfinkel, M. S., and et.al. (1994), Evaluation of a yoga based regimen for treatment of osteoarthritis of the hands. Journal of Rheumatology. | Iyengar B.K.S. (1981), "Light on pranayama" Unwin Hyman Limited, London,. |