



## AN IMPACT OF YOGIC PRACTICES AND NATURE CURE THERAPY ON RESTING PULSE RATE AMONG INTER-COLLEGIATE MEN HOCKEY PLAYERS

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### ABSTRACT

This study was designed to find out the impact of yogic practices and Nature cure therapy on resting pulse rate among Inter-collegiate men Hockey players. For this study, thirty (N=30) Alagappa University inter-collegiate Hockey players were selected as subjects at random and they will be divided randomly into three groups of ten each (n=10) namely Group-I underwent yoga practices, group-II underwent nature cure therapy treatment (Hydrotherapy) and group-III acted as control. The training period was limited to twelve weeks and for three days per week. Resting pulse rate was selected as dependent variable and it was assessed by radial pulse method. All the subjects were tested prior to and immediately after the experimental period on the selected dependent variables. The data obtained from the Experimental groups before and after the experimental period were statistically analyzed Analysis of covariance (ANCOVA). Whenever the 'F' ratio for adjusted post test means was found to be significant, the Scheffe's test was applied as post-hoc test to determine the paired mean differences. The level of confidence was fixed at .05 level for all the cases. The results revealed that there was significant difference among the selected groups.

**KEYWORDS** : Yogic Practices, Nature Cure Therapy, Resting Pulse Rate

### INTRODUCTION

Physical activity or exercise is a cornerstone of a healthy life style. The human body is designed for physical activity and movement. Not only does physical activity make the individual look and feel better, but it is also critical for improving health and extending the life. Throughout his life, man has to be physically active in order to procure his daily food and to succeed in the battle for survival. The marked deterioration in health and physical automation has mechanized our day-to-day life. Now-a-days people become almost sedentary and physically inactive because of very limited movement caused by scientific innovation. Physical inactivity can have serious implications for people health, observes the World Health Organization (*Barrow and MC Gee 1989*).

Yogic exercise are so designed that they help to keep the spine flexible. *Kapalabhati* is very effective for keeping the lungs healthy and prevent lung infections. With deep breathing air circulates to every part of lungs, whereas with most other physical exercises there is mainly an increase in respiratory rate. Physical exercises will make the joints supple. Yogic exercises aim at both prevention and treatment of various diseases. Yogic postures are generally mild and one is less likely to get into compilation, but physical exercise, especially the type known as jogging, which is most popular in the western world today, should never be undertaken unless the individual is fully evaluated by his/her physician. The physician should look for signs and symptoms and taken an electrocardiogram at rest and after exercise to detect an overt or sub clinical heart disease (*Ananda, 1982*).

Nature cure is an art and science of healthy living and a drugless system of healing based on well-founded philosophy. It has its own concept of health and disease and the principles of treatment. Nature cure is defined as a system of man developing in harmony with the constructive principles of nature on physical, mental, moral and spiritual planes of living. It has a great health promotive, curative and rehabilitative potential.

Nature Cure is a very old method of living and curing diseases. The main concepts of nature cure are morbid matter theory and the concept of vital force. The fundamental difference between nature cure and other systems is that its theory and practice are purely based on a "Holistic View point" unlike the latter's approach, which is specific. Nature Cure does not believe in the specific cause of disease

and its specific treatment but takes into account the totality of factors responsible for the disease such as one's unnatural habits, thinking, working, sleeping, relaxation, sexual indulgence, etc. It also considers the environmental factors involved that disturb the normal functioning of the body and lead it to a morbid, weak and toxic state. For treatment purpose, Nature Cure primarily tries to correct all the factors responsible for the disease and allows the body to recover itself. A nature cure physician simply helps in nature's effort to overcome disease by applying correct natural modalities and controlling the natural forces to work under safe limits. The five main modalities of treatment in nature cure are Air, Water, Heat, Mud and Space (*Shenbagavalli, and Poomayil, 2010*).

### METHODOLOGY

For this study, thirty (N=30) Alagappa University inter-collegiate Hockey players were selected as subjects at random and they will be divided randomly into three groups of ten each (n=10) namely Group-I underwent yoga practices, group-II underwent nature cure therapy treatment (Hydrotherapy) and group-III acted as control. The training period was limited to twelve weeks and for three days per week. Resting pulse rate was selected as dependent variable and it was assessed by radial pulse method. All the subjects were tested prior to and immediately after the experimental period on the selected dependent variables.

### ANALYSIS OF THE DATA

The data collected from the experimental groups and control group on 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. Whenever they obtained f-ratio value in the simple effect was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases .05 level of significance was fixed.

The Analysis of covariance (ANCOVA) on resting pulse rate of yoga practices group, nature cure therapy group and control group, have been analyzed and presented in Table-I.

### TABLE – I ANALYSIS OF COVARIANCE ON RESTING PULSE RATE OF YOGA PRACTICES GROUP NATURE CURE THERAPY GROUP AND CONTROL GROUP

Adjusted Post-test Means			Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio
Yoga Practices Group – (I)	Nature Cure Therapy Group – (II)	Control Group (III)					
73.15	74.19	76.15	Between With in	289.12 42.59	2 26	144.56 1.64	88.15*

**\*Significant at .05 level of confidence**  
**(Resting pulse rate Scores in Beats per seconds)**  
**(The table value required for Significance at .05 level with df 2 and 26 is 3.37)**

Table-I shows that the adjusted post test mean values of resting pulse rate for yoga practices group, nature cure therapy group and control group are 73.15, 74.19 and 76.15 respectively. The obtained F-ratio of 88.15 for adjusted post test mean is more than the table value of 3.27 for df 2 and 26 required for significant at .05 level of confidence.

The results of the study indicate that there are significant differences among the adjusted post test means of yoga practices group, nature cure therapy group and control group on the development of resting pulse rate.

To determine which of the paired means had a significant difference, the Scheffe's test was applied as Post hoc test and the results are presented in Table-II.

**TABLE - II THE SCHEFFE'S TEST FOR THE DIFFERENCES BETWEEN THE ADJUSTED POST TEST PAIRED MEANS ON RESTING PULSE RATE**

Adjusted Post-test means			Mean Difference	Confidence Interval
Yoga Practices Group – (I)	Nature Cure Therapy Group – (II)	Control Group - (III)		
73.15	74.19		1.04*	0.92
73.15		76.15	3.00*	0.92
	74.19	76.15	1.96*	0.92

**\*Significant at .05 level of confidence**

Table-II shows that the adjusted post test mean differences on yoga practices group and nature cure therapy group yoga practices group and control group, nature cure therapy group and control group are 1.04, 3.00 and 1.96 respectively. The values are greater than the confidence interval value 0.92, which shows significant differences at .05 level of confidence.

It may be concluded from the results of the study that there is a significant difference in resting pulse rate between the adjusted post test means of yoga practices group and nature cure therapy group, yoga practices group and control group, nature cure therapy group and control group. However, the improvements of resting pulse rate were significantly higher for yoga practices group than nature cure therapy group and control group.

It may also be concluded that yoga practices group is better than nature cure therapy group and control group in improving resting pulse rate.

**CONCLUSION**

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

1. The Experimental groups namely, yoga practices group and nature cure therapy group had significantly improved in resting pulse rate.
2. Significant differences were also noted between yoga practices group and nature cure therapy group in resting pulse rate.
3. The yoga practices group was found to be better reduction of

resting pulse rate, than the nature cure therapy group and control group.

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