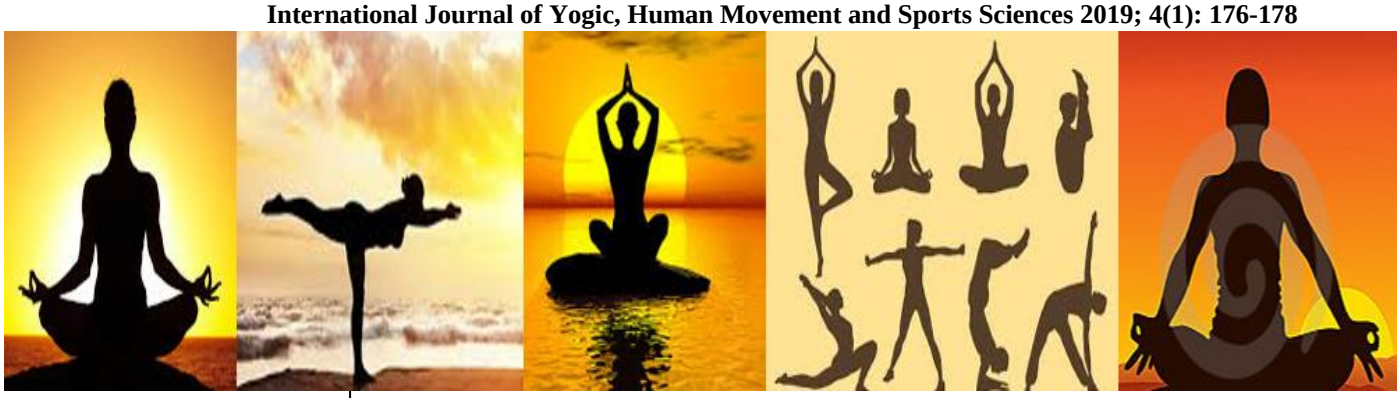
International Journal of Yogic, Human Movement and Sports Sciences 2019; 4(1): 176-178



ISSN: 2456-4419
Impact Factor: (RJIF): 5.18
Yoga 2019; 4(1): 176-178

www.theyogicjournal.com
Received: 23-11-2018
Accepted: 26-12-2018

S Manjappan
Ph.D., Scholar, Department of Physical Education, Annamalai University, Tamil Nadu, India

Dr. S Alagesan
Associate Professor, Department of Physical Education, Annamalai University, Tamil Nadu, India

Correspondence
S Manjappan
Ph.D., Scholar, Department of Physical Education, Annamalai University, Tamil Nadu, India

Effects of physical conditioning exercises and yogic practices on resting pulse rate among university men students

S Manjappan and Dr. S Alagesan

Abstract
The purpose of the study was to investigate the effects of physical conditioning exercises and yogic practices on resting pulse rate among university men students. To achieve the purpose of this study, thirty university men students selected from various departments. The age, height and weight of the subjects ranged from 18 to 24 years, 155 to 165 centimetres and 55 to 65 kilograms respectively. They were divided into three groups; each group consisted of ten subjects. Group-I underwent physical conditioning exercises, group-II underwent yoga practice and Group – III acted as control. The data collected from the three groups prior to and post experimentation were statistically analyzed by analysis of covariance (ANCOVA). When the obtained 'F' ratio value was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases statistical significance was fixed at 0.05 levels. The result showed that there was a significant decrease on resting pulse rate of the experimental group's men students compared to control group.

Keywords: Physical exercises, yoga and resting pulse rate

Introduction
Physical exercise is defined as any bodily movement produced by skeletal muscles that result in an increased energy expenditure. Physical activity has a relaxation effect and can improve sleep as well as reduce mental stress and raze energy levels. Depending on the selection and variety of physical activity and sports, it can provide daily variety, fun; develop the sense of competitiveness as well as open up to a new social environment. Training adaptation is the sum of transformations brought about by systematically repeated exercises. These structural and physiological changes results from a specific demand that athletes place on their bodies by the activity they pursue depending on the volume, intensity and frequency of training. Physical training is beneficial as long as it forces the body to adapt to the stress of the effort (Bompa, 1999) [1].

Yoga means the experience of oneness or unity with inner being. This unity comes after dissolving the duality of mind and matter into supreme reality. It is a science by which the individual approaches truth. The aim of all yoga practice is to achieve truth where the individual soul identifies itself with the supreme soul or God. Yoga has the surest remedies for man's physical as well as psychological ailments. It makes the organs of the body active in their functioning and has good effect on internal functioning of the human body.

Methodology
The purpose of the study was to investigate the effects of physical conditioning exercises and yogic practices on resting pulse rate among university men students. To achieve the purpose of this study, thirty university men students selected from various departments. The age, height and weight of the subjects ranged from 18 to 24 years, 155 to 165 centimetres and 55 to 65 kilograms respectively. They were divided into three groups; each group consisted of ten subjects. Group-I underwent physical conditioning exercises, group-II underwent yoga practice and Group – III acted as control. Resting pulse rate was assessed by the digital blood pressure monitor. The data collected from the three groups prior to and post experimentation

were statistically analyzed by analysis of covariance (ANCOVA). When the obtained 'F' ratio value was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases statistical significance was fixed at 0.05 levels.

Training

The experimental group- I subjects were participated in physical conditioning exercises on three days per week for twelve weeks, duration of the training programme on 40 minutes (including warm up and warm down) per day. Once in two weeks the training load was increased 5% of their HRR for physical activities, group- II subjects were participated in yoga practices on three days per week for twelve weeks, duration of the training programme on 40 minutes, once in two weeks one yoga added.

Results

Table 1: Analysis of Covariance on Resting Pulse Rate of Experimental and Control Groups

	Physical Exercises	Yoga Practices	Control Group	S OV	Sum of Squares	df	Mean squares	'F' ratio
Pre test Mean	70.70	70.60	70.90	B	0.46	2	0.23	0.23
SD	0.94	1.07	0.99	W	27.40	27	1.01	
Post test Mean	66.01	68.10	71.00	B	126.06	2	63.03	41.61*
SD	1.56	1.10	0.94	W	40.90	27	1.51	
Adjusted Post test Mean	65.99	68.05	71.05	B	128.42	2	64.21	43.70*
				W	38.20	26	1.46	

(The required table value for significance at 0.05 level of confidence with degrees of freedom 2 and 27 is 3.35 and degree of freedom 2 and 26 is 3.37) *Significant at .05 level of confidence

Table-1 shows that the pre test mean and standard deviation on resting pulse rate of physical conditioning exercises, yoga practice groups and control group are 70.70 + 0.94, 70.60 + 1.07 and 70.90 + 0.99 respectively. The obtained 'F' ratio value of 0.23 for pre test means on resting pulse rate of physical conditioning exercises, yoga practice groups and control group were less than the required table value of 3.35 for the degrees of freedom 2 and 27 at 0.05 level of confidence. It reveals that there is statistically insignificant difference among the resting pulse rate of physical conditioning exercises, yoga practice groups and control group during pre test period.

The post test mean and standard deviation on resting pulse rate of physical conditioning exercises, yoga practice groups and control group are 66.01 + 1.56, 68.10 + 1.10 and 71.00 + 0.94 respectively. The obtained 'F' ratio value of 41.61 for post test means on resting pulse rate of physical conditioning exercises, yoga practice groups and control group were higher than the required table value of 3.35 for the degrees of freedom 2 and 27 at 0.05 level of confidence.

The adjusted post test means on resting pulse rate of physical conditioning exercises, yoga practice groups and control groups are 65.99, 68.05 and 71.05 respectively. The obtained 'F' ratio value of 43.70 on resting pulse rate were greater than the required table value of 3.37 for the degrees of freedom 2 and 26 at 0.05 level of confidence. It is observed from this finding that significant differences exist among the adjusted post test means of experimental and control groups on resting pulse rate.

Since, the adjusted post test 'F' ratio value was found to be significant the Scheffe's test is applied as post hoc test to determine the paired mean differences, and it is presented in table-2.

Table 2: Scheffe's Test for the Difference between the Adjusted Post Test Paired Means of Resting Pulse Rate

Adjusted Post Test Means			DM	CI
Physical Exercises	Yoga Practices	Control Group		
65.99	68.05		2.06*	1.39
65.99		71.05	5.06*	1.39
	68.05	71.05	3.00*	1.39

*significant

Table-2 showed the Scheffe's test result that there was significant difference existed between the adjusted post tests means values 2.06, 5.06 and 3.00 of physical conditioning exercises, yoga practice; physical conditioning exercises and control groups, yoga practice and control groups respectively on resting pulse rate, which are higher than the confidence interval value 1.39 at 0.05 level of significance. However both experimental groups had significantly decreased on resting pulse rate when compared to control group. But, physical conditioning exercises group had more effect to decrease on resting pulse rate of university men students.

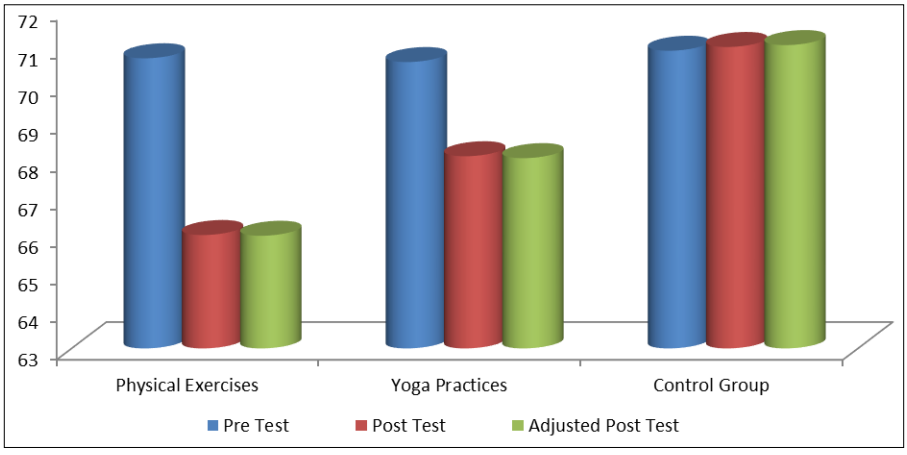


Fig I: Cylinder diagram on resting pulse rate of physical conditioning exercises, yoga practices and control groups

Discussion and Findings

The results of the study showed that both experimental groups had significantly decreased on resting pulse rate when compared to control group. But, physical conditioning exercises group had more effect to decrease on resting pulse rate of university men students. The following studies are supporting with my study results. Indranil Manna, *et. al.*, (2016) [2] investigated the effect of training on selected anthropometric, physiological and biochemical variables of Indian under 23 year field hockey players. A significant reduction in percent body fat, recovery heart rate. Savarirajan, (2015) [4] found out the impacts of intensive and extensive interval training on selected physical and physiological variables among college men students. The intensive and extensive interval training might be significant reduce of resting pulse rate among college men student. Muthuraj (2017) [3] examined the impact of concurrent strength and endurance training on mean arterial pressure. Result showed that concurrent strength and endurance training reduced mean arterial pressure.

Conclusion

Conclusion of the study shows that both experimental groups had significantly decreased on resting pulse rate when compared to control group.

References

1. Bompa, Tudor O. Periodization: Theory and methodology of Training, (4th ed), (champaign, Illinois: Human Kinetics Publishers, 1999, 24
2. Indranil Manna, Gulshan Lal Khanna, Prakash Chandra Dhara. Effect of training on body composition, physiological and biochemical variables of field hockey players. Advances in Applied Physiology. 2016; 1(2):31-37.
3. Muthuraj M. Impact of concurrent strength and endurance training on mean arterial pressure. International Journal of Physical Education, Yoga and Health Sciences. 2017; 4(1):16-17.
4. Savarirajan R. Impacts of intensive and extensive interval training on selected physical and physiological variables among college men students. International Journal of Sports Sciences & Fitness. 2015; 5(1):19-30.