

The Effect of Yogasana and Pranayama on physiological, Physical and Psychological changes among sports hostel student

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ABSTRAC

Yoga has been studied and may be recommended to promote relaxation, reduce stress and improve some medical conditions such as premenstrual syndrome. Yoga is considered to be a low-impact activity that can provide the same benefits as "any well-designed exercise program, increasing general health and stamina, reducing stress, and improving those conditions brought about by sedentary lifestyles". It is particularly promoted as a physical therapy routine, and as a regimen to strengthen and balance all parts of the body. The purpose of the study was to find out the "The Effect of Yogasana and Pranayama on physiological, Physical and Psychological changes among sports hostel student". Age of the subjects ranged from 16 to 18 years girls. The investigator was explained the purpose, and nature of studying in sports hostel students. On the basis of results it was concluded that 12 weeks of yoga training improved the physical fitness like Muscular strength, Flexibility, psychological variable like anxiety and Stress. On the basis of results it was concluded that 12 weeks of yoga training improved the physical fitness like Muscular strength, Flexibility, psychological variable like anxiety and Stress.

Key words: "Effect of Yogasana and Pranayama on Physical and Psychological Variables"

INTRODUCTION

Yoga is a complete science of life that originated in India many thousands of years ago, which reached the common man around third century B.C, through Maharishi Patanjali in the form of grant called Yoga sutra where yoga philosophy is described as Astanga yoga. It is the oldest system of personality development in the world encompassing body, mind and spirit. The ancient yogis had a profound understanding of man's essential nature and of what he needs to live in harmony with himself and his environment. They perceived the physical body is a vehicle, with mind as a driver, the soul as man's true identity, and action, emotion and intelligence as the three forces which pulls the body vehicle.

Asanas

“Asana” is the Sanskrit word for a physical posture. Expressed in general terms Asana denotes a specific position which can be held in a relaxed and comfortable manner for a long period of time. In the 2nd Century before Christ, Patanjali wrote down the principles of Yoga practice in the “Yoga Sutras” (aphorisms). He named only the meditation posture “Asana” and the physical postures he termed “Yoga Vyayam”. However, in common usage the dynamic Yoga exercises also became known as Asanas.

Importance of Yoga

Good Health is the right of every human being. But this right depends on individual, social and environmental factors. Along with social or environmental factors to a large extent, we can develop a better immune system and a better perception of oneself so that other conditions do not affect us adversely and we can achieve good health. Health is a positive concept. Positive health does not mean merely freedom from disease, but, it also include a jubilant and energetic feeling of well-being with an amount of general resistance and capacity to easily cultivate immunity against specific offending agents. There are many modern and indigenous methods and disciplines that can help us to successfully fight with diseases. For example, the system of yoga, naturopathy, ayurveda, unani, homeopathy and siddha can be quoted among indigenous systems, whereas allopathic system is quoted as the modern and popular medical system.

Benefits of yoga

- Helps reduce stress
- Relieves anxiety
- Improves concentration levels
- Helps reduce inflammation
- Can improve cardiac health
- Helps fight depression
- Improves quality of life
- Could reduce chronic pain
- Promotes quality of sleep
- Improves flexibility and balance
- May relieve migraines
- Promotes healthy eating habits

Pranayama

Pranayama, the yogic art of breathing, comes from the root words prana and ayama. Prana means “life force” and ayama means “expansion, manifestation, or prolongation.” The practice of pranayama therefore is the practice of expanding our own prana so that it harmonizes with the universal prana. This results in oneness; the merging of a person’s own consciousness with universal consciousness. It is in this union that we realize we are not simply a limited physical body, but are, in fact, an immortal spirit.

Importance of Pranayama

There is no penance greater than Pranayama. It blemishes the ignorance and helps the knowledge to rise. Pranayama helps in reducing different kinds of diseases. Moreover, because pranayama (breathing) is the important means of supplying our body and its various organs with prana (oxygen) it is vital for our survival. Another important reason that pranayama is important is that it is because breathing is one of the most important ways that we are able to get rid of waste products and toxins from our body.

Table No.4.2 (a) Showing the Mean, Standard Deviation and ‘t’- value of Pre-test and Post-test for Yogasana training Experimental Group on Resting Pulse Rate Performance.

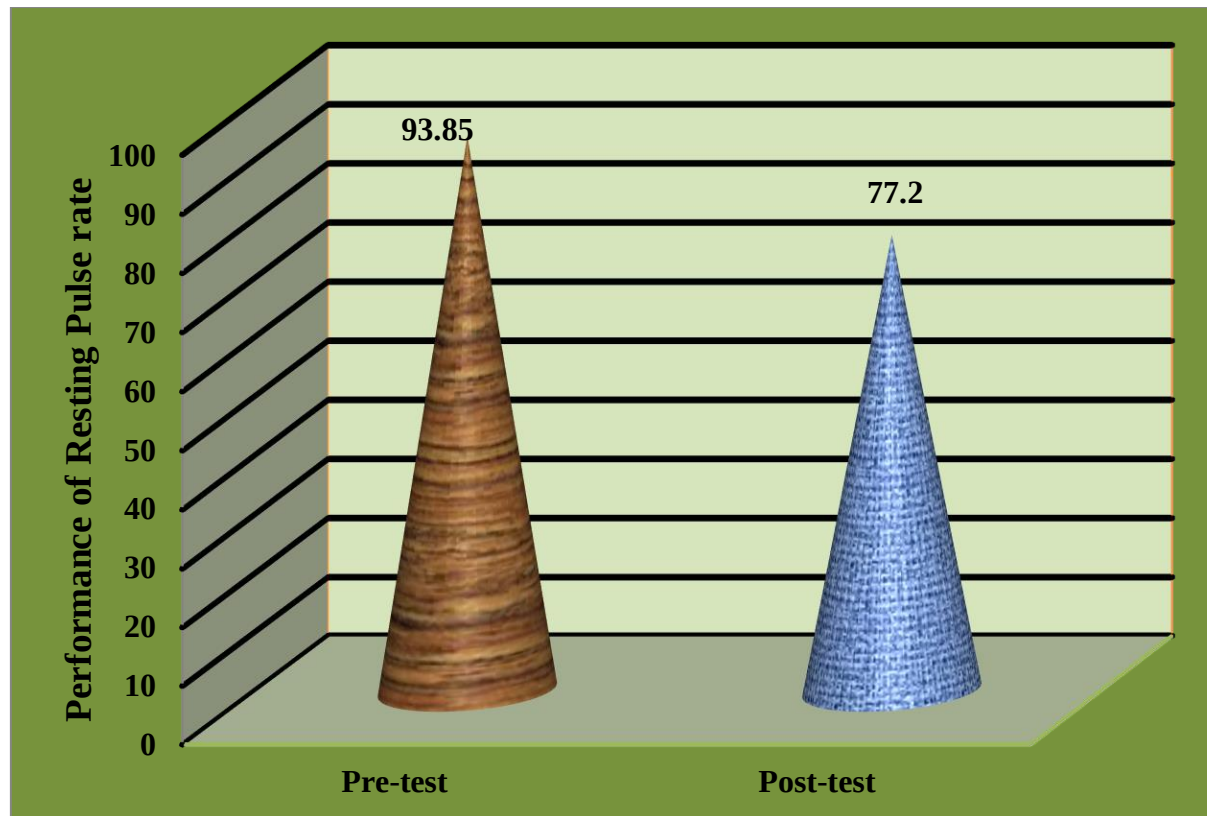
Variable	Test	N	Mean	SD	t- Value
Resting Pulse Rate	Pre-test	20	93.8500	5.08118	9.784*
	Post-test	20	77.2000	4.70834	

The level of significant 0.05=Table value= 1.725

Table No 4. 2 (a) indicates that the t value is more than the table value that is 1.725, hence it is significant.

The pre-test mean value is 93.8500 and the post-test mean value 77.2000. The post-test mean value is less than pre-test mean value. It shows significant improvement in the Resting Pulse Rate performance of Subjects owing to the twelve weeks Yogasana training the same as displayed in the figure 4. 2 (a)

Figure No.4.2 (a) Showing the Mean, Standard Deviation and ‘t’- value of Pre-test and Post-test for Yogasana training Experimental Group on Resting Pulse Rate Performance.



The above figure 4.2 (a) clearly indicates that the twelve weeks yogasana training performance is drastically improved the Resting Pulse Rate of the subjects.

Table No.4.2 (b) Showing the Mean, Standard Deviation and 't'- value of Pre-test and Post-test for Pranayama training Experimental Group on Resting Pulse Rate Performance.

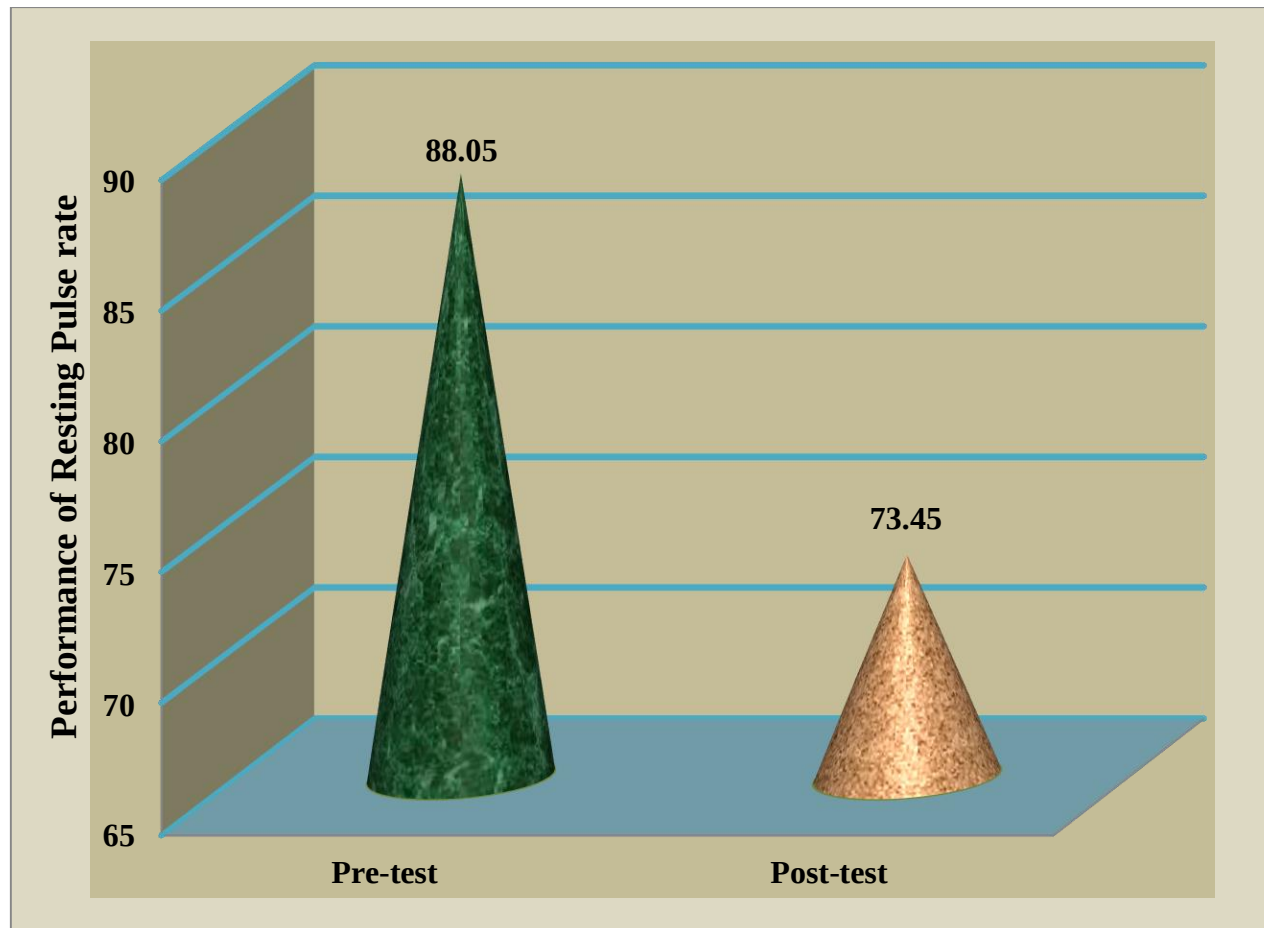
Variable	Test	N	Mean	SD	t- Value
Resting Pulse Rate	Pre-test	20	88.0500	8.74477	4.945*
	Post-test	20	73.4500	6.72368	

The level of significant 0.05=Table value= 1.725

Table No 4.2 (b) indicates that the t value is more than the table value that is 1.725, hence it is significant.

The pre-test mean value is 88.0500 and the post-test mean value 73.4500. The post-test mean value is less than pre-test mean value. It shows significant improvement in the Resting Pulse Rate performance of Subjects owing to the twelve weeks Pranayama training the same as displayed in the figure 4.2 (a)

Figure No.4.2 (b) Showing the Mean, Standard Deviation and ‘t’- value of Pre-test and Post-test for Pranayama training Experimental Group on Resting Pulse Rate Performance.



The above figure 4.2 (b) clearly indicates that the twelve weeks Pranayama training performance is drastically improved the Resting Pulse Rate of the subjects.

Table No.4.2 (c) Showing the Mean, Standard Deviation and 't'- value of Pre-test and Post-test for Control Group on Resting Pulse Rate performance

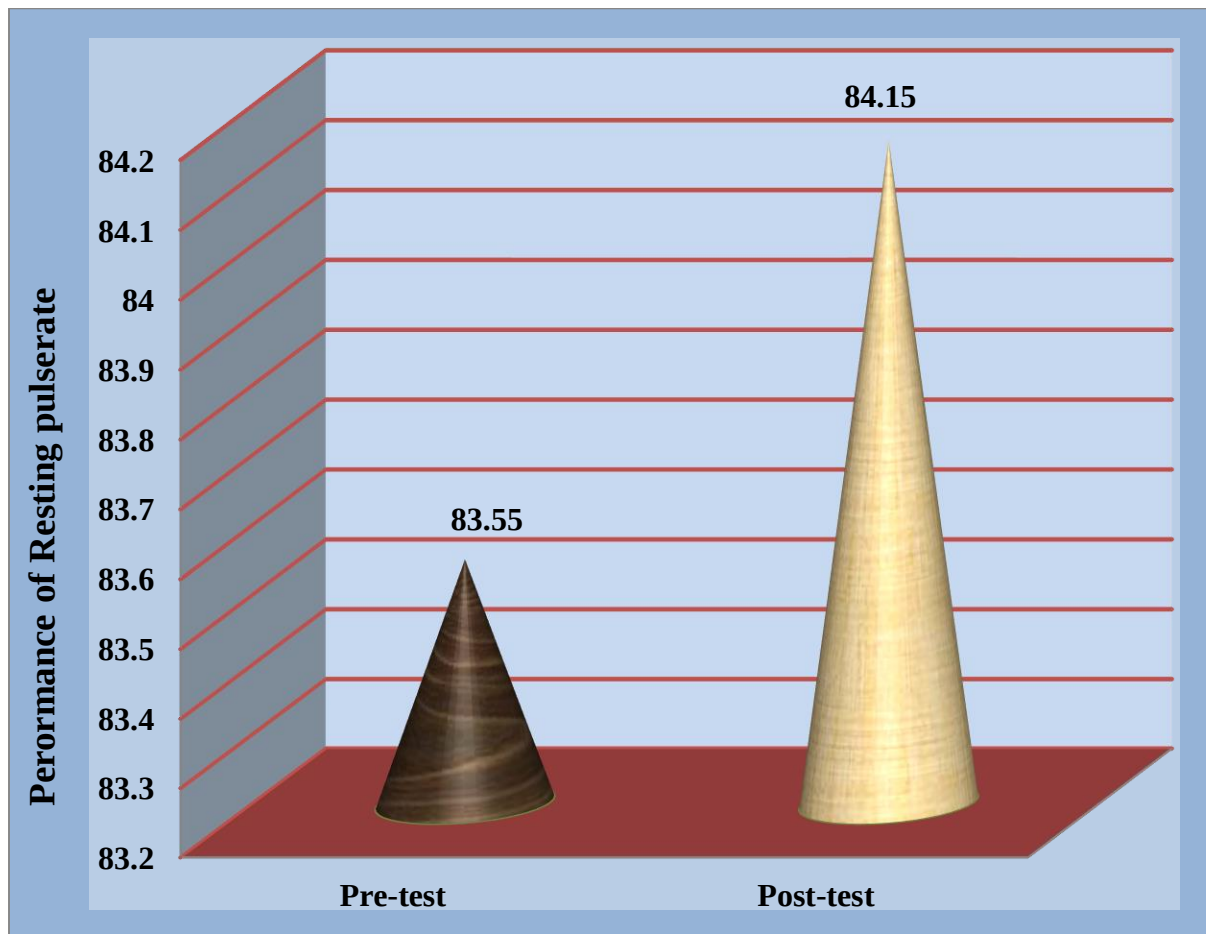
Variable	Test	N	Mean	SD	t- Value
Resting Pulse Rate	Pre-test	20	83.5500	10.21080	.221
	Post-test	20	84.1500	15.08668	

The level of significant 0.05 = Table value = 1.725

Table No 4.2 (c) indicates that the 't' value is less than the table value that is 1.725, hence it is not significant.

The pre-test mean value is 83.5500 and the post-test mean value 84.1500. The post-test mean value is more than the pre-test mean value. It is shows no improvement in the Resting Pulse Rate performance of subjects control group did not undergo any kind of training Programme the same as displayed in the figure 4.2 (c)

Figure No.4.2 (b) Showing the Mean, Standard Deviation and 't' - value of Pre-test and Post-test for control Group on Resting Pulse Rate Performance.



The above figure 4.2 (c) clearly indicates that the control group did not show any improvement in the post-test Resting Pulse Rate performance of the subjects.

Table No. 4.2 (d) Computation of Analysis of Covariance of Experimental and Control Groups on Resting Pulse Rate.

Resting Pulse Rate	Test	Experimental group-I (Yogasana Training)	Experimental group-II (Pranayama Training)	Control group-III	Source of variance	Sum of the Squares	Df	Mean squares	F-Ratio	Remarks
Pre test	Mean	93.8500	88.0500	83.5500	BG	.895	1	.895	.033	NS
	SD	5.08118	8.74477	10.21080	WG	489.655	18	27.203		
Post test	Mean	77.2000	73.4500	84.1500	BG	494.229	1	494.229	69.190	S
	SD	4.70834	6.72368	15.08668	WG	128.571	18	7.143		
Adjusted Post Test Means	Mean	77.1121	73.3646	84.2280	BG	682.227	1	682.227	90.975	S
					WG	127.498	17	7.499		

*The level of significance is 0.05=table value 2.086

Table No.4.10 Shows the mean, SD values of pre-test of Experimental Group I, Experimental Group II and control Group on Resting Pulse Rate is observed that mean score value of Experimental Group I, Experimental Group II and control Group are 93.8500, 88.0500 and 83.5500 and their SD values are 5.08118, 8.74477 and 10.21080 respectively.

The calculated F- value found to be .033 at 0.05 level of significant it is found to be non significant it can be concluded that the Resting Pulse Rate found to be similar among Experimental I subjects, Experimental Group II subjects and control Group subjects.

The mean, SD values of post- test of Experimental Group I, Experimental Group II and control Group on Resting Pulse Rate. It is observed that mean score value of Experimental Group I; Experimental Group II and control Group are 77.2000, 73.4500 and 84.1500 their SD value are 4.70834, 6.72368 and 15.08668 respectively.

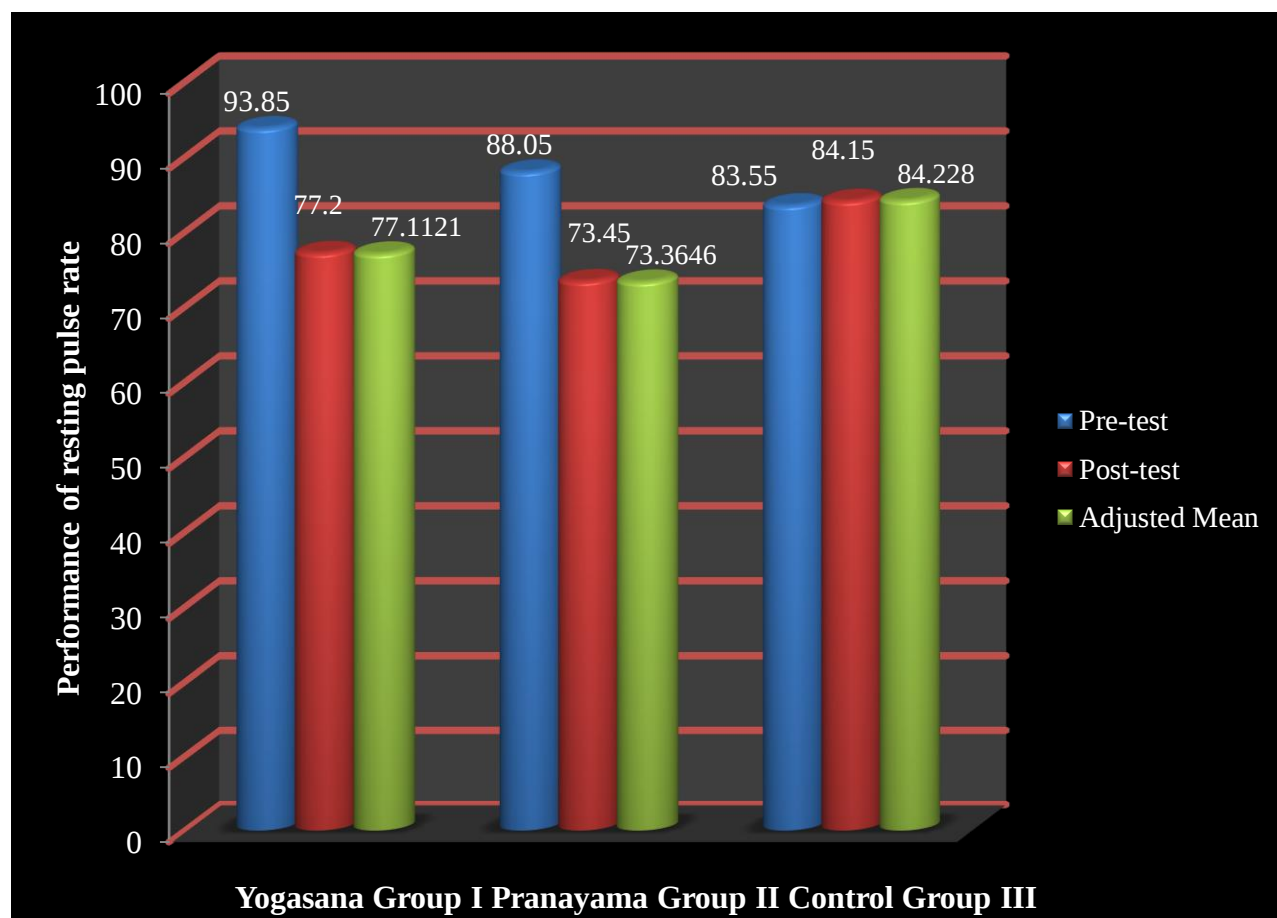
The calculated F- value found to be 69.190 at 0.5 level of significant it is found to be significant it can be concluded that the Resting Pulse Rate found to be significant difference among Experimental Group I subjects, Experimental Group II subjects and control Group subjects.

The mean values of adjusted post- test of Experimental Group I subjects, Experimental Group II subjects and control Group subjects on Resting Pulse Rate found to be 77.1121, 73.3646 and 84.2280 respectively.

The calculated F- value found to be 90.975 at 0.05 level of significant there is a significant difference is observed between Experimental I subjects, Experimental group II subjects and control group subjects.

The Resting Pulse Rate Performance has been displayed in figure 4.2 (d).

FIGURE NO 4.2 (D) .BAR DIAGRAM SHOWING THE PRE, POST AND ADJUSTED MEANS OF THE EXPERIMENTAL AND CONTROL GROUPS ON RESTING PULSE RATE.



The above figure 4.2 (d) indicates that the post test values of Experimental group and adjusted post test significantly improved the performance of Resting Pulse Rate and also the post test values of Resting Pulse Rate were less than the pre test values due to 12 weeks of Yogasana and Pranayama training. The Control group pre- test and post- test performance of Resting Pulse Rate shows no improvement.

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