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Effect of asana and pranayama practices on selected physical and physiological variables of college men

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Abstract

The purpose of the study was to find out the effect of asana and pranayama practices on selected physical and physiological variables of college men. To achieve the purpose of the study, 30 college men were selected from Sri Ramakrishna Vidyalyaya College of arts and science, periyanaickenpalayam, Coimbatore. The age of the subjects were ranged between 17-21 years. Flexibility and balance taken as a physical fitness variable and resting heart rate, cardiovascular endurance and vital capacity are taken as a physiological variable for the study. The selected subjects were undergone the 12 weeks of asana and pranayama practices, the pre and post-test were taken from the subjects before and after the 12 weeks of practices. The paired sample T test was used to find out the significant difference between the pairs. From the statistical result it was concluded that the asana and pranayama practices will significantly improve the physical fitness and physiological variables namely flexibility, balance, resting heart rate, cardio respiratory endurance and vital capacity in the level of 0.05 level of significance.

Keywords: Asana, pranayama, physical fitness, physiology

Introduction

Yoga is the “Union of the individual self with the universal self” (Iyengar, 2001) [1]. Yoga means the union or communication or unity with our inner being. ‘Asana’ means a state of being in which we can remain steady, calm, quiet and comfortable with our physical body and mind. Yoga helps to tone up the entire body to regularize blood compositions and improve blood circulations, tones up glands and visceral muscles. Robson states that “yoga develops flexibility and vital capacity”. Regular practice of yoga helps to keep our body fit, controls cholesterol level, reduces weight, normalizes blood pressure and improves heart performances. Further, preliminary studies in the United States and India suggest that yoga may be helpful for specific conditions, such as asthma, epilepsy, anxiety, stress and others. Regular exercise results in an increase in the blood flow and improves oxygen carrying and waste removal capacity and further increases work load capacity. Exercise increases the volume of hemoglobin and erythrocyte of the blood. Also blood vessels are seen to maintain elasticity and suppleness when stressed systematically probably by the beneficial effect of the heart.

Today, the focus is more on yoga’s practical benefits. There is a definite difference between yoga and stretching and normal exercise. Yoga teaches the concept of focusing awareness while performing specific postures. The benefits of yoga are numerous, including improved physical fitness, stress control, general well-being, mental clarity and greater self-understanding. The poses enhance muscle strength, coordination, flexibility and agility and can help hack feel better. According to the Natural Institutes of Health, when people actively seek to reduce the stress in their lives by quieting the mind, the body often works to heal itself. In this sense, yoga can be seen not only as a way to get into shape on several levels, but also a tool for self-healing. As for athletes, yoga can be a powerful enhancement in regular training exercises. Adding yoga in a routine training programme helps to develop strength, flexibility, range of motion, concentration, and cardiovascular health and reduces stress, tension and tightness. The most significant benefit of adding yoga to a training programme is its effect on performance. Yoga allows an athlete to train harder and at a higher level because the range of motion is greater and the fear of injury is lessened.

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Methodology

The purpose of the study was to find out the effect of asana and pranayama practices on selected physical and physiological variables of college men. To achieve the purpose of the study, 30 college men were selected from Sri Ramakrishna Vidyalaya College of arts and science, periyanaickenpalayam, Coimbatore. The age of the subjects were ranged between 17-21 years. Flexibility and balance taken as a physical fitness variable and resting heart rate, cardiovascular endurance and vital capacity are taken as a physiological variable for the study. The standardised tests are used to test

the dependable variables namely Sit and reach for Flexibility, Stork balance test for Balancing ability, Radial pulse rate manual for resting heart rate, Cooper 12 minutes run and walk test for Cardiovascular Endurance and wet Spiro meter used to test vital capacity. The selected subjects were undergone the 12 weeks of asana and pranayama practices, the pre and post-test were taken from the subjects before and after the 12 weeks of practices. The paired sample T test was used to find out the significant difference between the pairs.

Statistical interpretations and results

Table I: Computation of t- ratio for dependable variables

S. No	Variable	Test	Mean	Standard Deviation	T Test
1	Flexibility	Pre	16.66	1.95	9.93*
		Post	21.20	2.51	
2	Balance	Pre	0.06	0.01	9.57*
		Post	0.15	0.03	
3	Resting pulse rate	Pre	77.33	4.56	3.05*
		Post	74.13	3.31	
4	Cardio vascular endurance	Pre	2430	587	3.87*
		Post	2690	495	
5	Vital capacity	Pre	2660	246	14.50*
		post	3210	285	

*significant at 0.05 level

The above table shows the obtained T values of physical fitness and physiological variables namely Flexibility (9.93), Balance (9.57), Resting pulse rate (3.05), Cardiovascular Endurance (3.87) and Vital capacity (14.50) are more than the table T value of 2.045

Discussions on Finding

The result of the study it was finding that the yoga and pranayama practices are significantly improving the physical fitness variables namely flexibility and balance and physiological variables namely resting pulse rate, cardio vascular endurance and vital capacity. C. Sathiyaraj (2015) [5]. He is stated that the Asana practice is improve the flexibility, and also the result of the study is consistent with E. Amuthan (2015) [4]. Asana and pranayama training will significantly improve the physiological variables.

Conclusion

From the finding of the study it was concluded that the 12 weeks of yoga and pranayama practices was significantly improve the physical fitness variables namely Flexibility and Balance and physiological variables namely Resting Pulse rate, Cardio Vascular endurance and Vital capacity.

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