



EFFECT OF SURYANAMASKAR YOGIC PRACTICE ON HEART RATE AND FLEXIBILITY OF TRIBAL COLLEGE YOUTHS.

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ABSTRACT

The purpose of the study is to determine the effect of Suryanamaskar yoga practice on resting heart rate (HR) and flexibility of tribal college youths. Twenty healthy college athletes were randomly selected from Seva Bharati Mahavidyalaya, Kaggari as subjects of the study. Their age ranged from 17 to 23 yrs. Suryanamaskar techniques were properly introduced with demonstration to the subjects before the practice begins. The duration of the practice was 15- 20 minutes with two sessions in a day i.e. morning and evening session for a period of twelve weeks. The variables resting heart rate and flexibility were selected for the present study. Pre and post test were conducted in order to identify the significance difference. The collected data was analyzed by applying 't' test. The result shows that there is a significant difference was found in resting heart rate. Suryanamaskar is effective in increasing flexibility of the subjects.

KEYWORDS

Suryanamaskar, Heart rate, flexibility etc.

Introduction:

Suryanamaskar is a branch of yoga that concentrates physical health and mental well-being. Through practicing various body postures (asana), breathing techniques (Pranayama), and meditation, it is believed that one can obtain a sound physical body as well as a calm and peaceful mind.

Regular practice of a variety of yoga techniques have been shown to lower heart rate and blood pressure in various populations. In recent years, it has become more apparent that people need techniques to help them cope with the everyday stressors of modern life. With stress related hypertension and cardiovascular disease on the rise, these hatha

In most cases facilitating mind and body flexibility is easily put aside when it is probably needed the most. However, keeping the body flexible may help decrease tightness and tensions that can lead to chronic and often debilitating physical problems. Once sidelined from regular activities due to orthopedic or other problems, it becomes increasingly difficult to be motivated to start exercising again. Regardless of the potential physical risks of inflexibility, even the most dedicated runner or recreational athlete often does not make time for adequate flexibility training. Since time is often seen as a limiting factor when exercising, a daily practice of Suryanamaskar (salute to the sun) can be the perfect solution for time-challenged individuals.

Suryanamaskar is a series of 12 physical postures made up of a variety of forward and backward bends. The series of movements stretch the spinal column and upper and lower body through their full range of motion, massaging, toning and stimulating vital organs by alternately flexing the body forwards and backwards. It builds upper body strength through the inherent weight bearing positions, especially in the arms and shoulders, throughout the series. The simulated push-up movement and upper body weight bearing positions in the series may help to develop muscular strength and endurance in the pectoral, triceps, as well as the muscles of the trunk. The series gives such a profound stretch to the body that it is considered to be a complete yoga practice by itself. The purpose of the study is to determine the effects of six weeks, twice daily Suryanamaskar yoga practice on heart rate and flexibility of college youths.

Objective of the study:

To study the effect of twelve weeks Suryanamaskar practice on resting heart rate and flexibility of tribal college youths.

Hypothesis of the study:

It was hypothesized that there shall be a significant difference in

the selected variables following twelve weeks Suryanamaskar practice.

Methodology:

Selection of subjects: In present study simple random sampling was adopted for selection of subjects. Twenty male tribal students from Seva Bharati Mahavidyalaya, Kaggari were selected for the present study. The ages ranged of the subjects were 17 to 21 yrs.

Selection of variable:

To order to assess the effects of twelve weeks, twice daily Suryanamaskar yoga practice on heart rate and flexibility of tribal college youths. Sit and reach test was used to measure the flexibility and resting heart rate was measured manually with the help of stop watch.

Procedure:

The Suryanamaskar practice was given to the subjects for twelve weeks, twice daily for the duration of 15-20 mints. in the gymnasium hall of Seva Bharati Mahavidyalaya, Kaggari. Variables selected for the study was resting heart rate and flexibility. The data was collected twice i.e. prior to the start of the training program (Pre data) and after the completion of the twelve weeks practice (post data). The data collected the study was statistically analyzed by employing 't' test at level of significance.

Result:

The 't' test was applied to find out the significance difference between the pre test and post test means of the selected variables. The level of significance was chosen to test the hypothesis was 0.05.

Table no.1- Values of paired statistics of Resting Heart Rate

Groups	Mean	S.D	S.E.M	't' Ratio
Pre- test	64.66	8.70	2.51	5.19*
Post- test	58.16	5.93	1.71	

*Significant at 0.05 level of significance; $t_{0.05}=2.18$

Graphical representation of Pre and post test mean and standard deviation of resting heart rate.

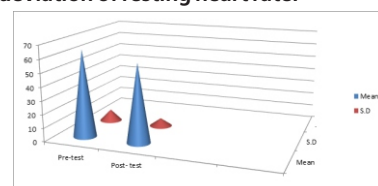


Table no. 1 indicate the mean , standard deviation and standard error mean values of pre-test of resting heart rate which were found to be 64.66, 8.70 and 2.51 respectively. And the values of mean, standard deviation and standard error mean of post-test of resting heart rate were found to be 58.16, 5.93 and 1.71 respectively. Table no.1 also indicate the paired sample t-test of resting heart rate which shows that there was a significant different in the pre and post test values of the variables resting heart rate. The calculated value of 't' was found to be 5.19* at 0.05 level of significance, which is higher than the tabulated value of 't' at 0.05 level of significance.

Table no.2- Values of paired statistics of Flexibility

Groups	Mean	S.D	S.E.M	't" Ratio
Pre- test	1.96	0.05	0.12	2.68*
Post- test	2.46	0.25	0.05	

*Significant at 0.05 level of significance; t.05=2.18

Graphical representation of Pre and post test mean and standard deviation of resting flexibility.

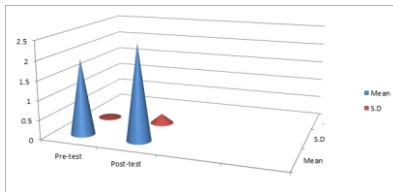


Table no. 2 indicate the mean , standard deviation and standard error mean values of pre-test of flexibility which were found to be 1.96, 0.05 and 0.12 respectively. And the values of mean, standard deviation and standard error mean of post-test of flexibility were found to be 2.46, 0.25 and 0.05 respectively. Table no.2 also indicate the paired sample t-test of flexibility which shows that there was a significant different in the pre and post test values of the variables flexibility. The calculated value of 't' was found to be 2.68* at 0.05 level of significance, which is higher than the tabulated value of 't' at 0.05 level of significance.

Conclusion:

The result of the present study shows that there is significant difference in resting heart rate and flexibility of tribal college of Seva Bharati Mahavidyalaya of Vidyasagar University of West Bengal. Result of present study support finding of Kristine (2008) and Sivansankara (2006) in case of BMI and is compatible with results of talles (2204), Mc Caffrey(2005), Wang(2004) and Smith(2001) in case of HR, SBP, DBP and Health related quality of life.

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