

Effect of Surya Namaskar Practice on Heart Rate and Flexibility

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ABSTRACT

The purpose of the study is to determine the effect of “Surya namaskar” yoga practice on resting heart rate (HR) and flexibility of Students. Twenty students were randomly selected from Government School, Fagi villege, Jaipur, Rajasthan, as subjects of the study. Their age ranged from 8 to 16 yrs. The duration of the practice was 30 - 45 minutes with two sessions in a day i.e. morning session for a period of ten 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 analyze by't' test. The result shows that there is a significant difference was found in resting heart rate.

Keywords: Surya Namaskar, Heart Rate, Flexibility etc.

INTRODUCTION

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. 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.

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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 “Surya namaskar” (salute to the sun) can be the perfect solution for time-challenged individuals. Surya namaskar 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 forward and backwards.

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 “Surya namaskar” yoga practice on heart rate and flexibility of students.

OBJECTIVE OF THE STUDY

To study the effect of ten weeks “Surya Namaskar” practices on resting heart and flexibility of Government Sr. Secondary School, Fagi villege, Jaipur, Rajasthan

HYPOTHESIS OF THE STUDY

It was hypothesized that there shall be a significant difference in the selected variables following ten weeks “Surya Namaskar” practices.

METHODOLOGY

Selection of Subjects

In present study simple random sampling was adopted for selection of subjects. Twenty male students from Government Sr. Secondary School, Fagi villege, Jaipur, Rajasthan, were selected for the present study. The ages ranged of the subjects were 8 to 16 yrs.

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Selection of Variable

To order to assess the effects of ten weeks, twice daily Surya Namaskar yoga practice on heart rate and flexibility of students. 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 Surya Namaskar practice was given to the subjects for ten weeks, twice daily for the duration of 30-45 mints in the sports room of Government Sr. Secondary School, Fagi villege, Jaipur, Rajasthan.

. Variables selected for the study was resting heart rate and flexibility. The data was collected twice i.e. prior to the start of training program (Pre data) and after the completion of the ten weeks practice (post data). The data collected the study was statistically analyzed by employing' test at level of significance.

RESULT

'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 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.05=2.18

Table 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 2.52 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 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 variable resting heart rate. The calculated value of 't' was found to be 5.19* at 0.05 level of 't' at 0.05 level of significance.

Table 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

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Table 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 2 also indicate the paired sample t-test of flexibility which shows that there was a significant difference 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 Government Sr. Secondary School, Fagi villege, Jaipur, Rajasthan.

. Result of present study support finding of Kristine (2008) and Sivasankara (2006) in case of BMI and is compatible with resultsoftalles (2204), McCaffrey (2005) and Smith (2001) in case of HR, SBP, DBP and Health related quality of life.

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