



EFFECT OF YOGA ASANS, PRANAYAMA AND FREE HANDS EXERCISES ON STRESS, PULSE RATE AND BLOOD PRESSURE OF FEMALES TEENAGERS OF SIRSA

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Abstract

The purpose of this study was to find out the effect of yoga asanas, pranayama and free hand exercises on stress, pulse rate and blood pressure of females of Sirsa. A sample of 100 females between the age of 13 to 19 years was randomly selected from Sirsa.

For assessing the effect of yoga asanas, pranayama and free hand exercises on stress, pulse rate and blood pressure, yoga asanas, pranayama and free hand exercises were given thorough training of six months. The data were obtained through pre test and post test and were statistically analyzed. A significant difference was seen in pulse rate and blood pressure. Yoga asanas, pranayama and free hand exercises help in improving the pulse rate and blood pressure. Improving these variables shows that yoga asanas, pranayama and free hand exercises can increase the efficiency of the subjects.

INTRODUCTION

Yoga asanas, pranayama and free hand exercises are essential for the wholesome development of the child. Yoga is becoming more and more popular among Indian society. It is a racial heritage, but there is an urgent need for scientific planning to evaluate the claim about the practice of yoga, a system for physical, mental and spiritual improvement. It is evident that the fit citizens are the nation's best assets and the weak ones are liabilities. It is, therefore, the responsibility of each nation to promote physical fitness of everybody. It is a basic requirement for the task performed by an individual in daily life. Rising cost of prescribed drugs and

increasing population are making alternative medicine increasing more attractive. Yet there are few rigorous, scientific studies which are examining the safety and effectiveness of alternative and complementary therapy in fighting specific symptoms or diseases. Yoga is one of the promising and most appealing therapies in the modern era. In addition to this, changes occur in lifestyle, eating habits, day to day stresses, etc. Keeping in view the importance of yogic practice and calisthenic exercises, the present study was carried out to determine the effects of pranayama practice and calisthenic exercises on sport persons. The aim of the study, therefore, was to find out whether there was any effect of yoga asanas, pranayama and free hand exercises on stress, pulse rate and blood pressure of teenage females.

METHODS AND PROCEDURE

The present study was a purposive random sampling plan used for the selection of sample. A total 100 females (13-19 years) were selected from Sirsa.

The selected sample of experimental group went through training of yoga asanas, pranayama and free hand for three months under the direct supervision of yoga experts and researcher.

Yoga asans: surya namaskar asana

pranayama: nadishiodhana, sithal, sitakari, kapalbhati, brahmari.

Free hand exercises: Free hand callisthenic exercises.

Which were performed early in the morning from 6:00 am to 7:00 am daily at Sirsa.

Parameter measurements

Heart rate was measured by counting radial pulse for a minute. Three readings were taken and their average was recorded. Both systolic and diastolic blood pressures were measured with the auscultatory method by using sphygmomanometer and stethoscope. Three readings were taken and their average was recorded.

Pulse rate and blood pressure were determined, through pre test and post test by sophisticated measuring equipment i.e. stop watch and sphygmomanometer. Score of different tests were collected; tabulated and statistical analysis was done to find out the results.

INTERPRETATION AND DISCUSSION OF RESULTS

After the statistical analysis, the results were presented in the table. The means difference was calculated to find out the significant difference of the pre- test and post- test of pulse rate and blood pressure with the help of 't' test.

Table

Variable	Initial Mean	Final Mean	Mean Deference	t' value
Pulse Rate	78.00	64.00	14.00	6.54**
Blood Pressure (Systolic)	94.00	85.00	9.00	8.21**
Blood Pressure (Diastolic)	137.00	130.00	7.00	4.64**

* .05(1.761)

** .01(2.624)

According to the table, the means of pulse rate of female group, pre test and post test were 78.00 and 64.00 respectively. The results were found significant at .05 levels of female group. It indicated that pulse rate dropped, after the training of yoga asanas, pranayama and free hand exercise.

According to the table means of blood pressure systolic of female group pre-test and post-test were 137.00 and 130.00 respectively. The result was found significant at 0.05 level. It indicated that significant change in systolic blood pressure. On the other hand means of Diastolic pre-test and post-test were 94.00 and 85.00 respectively. The results were found significant at 0.05 level. The results were indicated that Diastolic blood pressure significantly decreases. It indicated that positive improvement in Blood Pressure. It is also indicated that positive improvement in stress management.

Conclusions:

After obtaining the result of pre- test and post- test, it was found that the pulse rate and B.P. decreased in a significant manner of experimental group. yoga asanas, pranayama and free hand exercises help in improving the stress management, pulse rate and blood pressure. Improving these variables shows that yoga asanas, pranayama and free hand exercises can increase the efficiency of the subjects.

References:

1. Bhargava R, Gogate M G, Mascarchas J F, “Autonomic responses to breath holding and its variations following Pranayam .” Indian J Pharmacol 1988; 32 (4): 257-264
2. Bharshankar, JR, Bharshankar R, Deshpande VN, Kaore SBand. Gosavi GB.
Effect of yoga on cardiovascular system in subjects above 40 years. Indian J Physiol Pharmacol 2003; 47 (2): 202–206
3. Cleanore Golf Adams “The study of Age, height, weight and power as classification factors for junior height school girls”. Research Quarterly 5(May 1984); 95-100.
4. Gelber RP, Gaziano JM, Manson JE, Buring JE, Sesso HD. A prospective study of body mass index and the risk of developing hypertension in men. Am J Hypertens (2007 ;) 20:: 370-7.[CrossRef][ISI][Medline]
5. Godara Kailash, Devi Gomati . Effect of pranayama and callisthenic exercises on pulse rate and blood pressure of females of Haryana. Chintan research journal(2013); 45-47.
6. Gopal KS, Bhatnagar OP, Subramanian N, Nishith SD. Effects of yogasanas and pranayams on blood pressure, pulse rate and some respiratory functions. Indian J Physiol Pharmacol 1973; 17: 273–276.
7. Haber D. Health promotion to reduce blood pressure level among older Blacks.
Gerontologist (1986 ;) 26:: 119-21.
8. Kristal AR, Littman AJ, Benitez D, White E. Yoga practice is associated with attenuated weight gain in healthy, middle-aged men and women. Alter Ther Health Med (2005 ;) 11:: 28-33.
9. Latha, Kaliappan KV. Yoga, pranayam, thermal biofeedback techniques in the management of stress and high blood pressure. J Indian Psychol (1991;) 9:: 36-46.
10. Mahajan AS, Reddy KS, Sachdeva U. Lipid profile of coronary risk subjects following yogic lifestyle intervention. Indian Heart J (1999;) 51:: 37-40.
11. Rakesh Dubey and Alka Nayak “Yogic Asana and pranayam for stress, tension and migraine” International research journals August 2009; 216-17, Vol.II
12. Ray US, Mukhopadhyaya S, Purkayastha SS, Asnani V, Tomer OS, Prashad R, et al. Effect of yogic exercise on physical and mental health of young fellowship course trainees. Indian J Physiol Pharmacol (2001;) 45:: 37-53.