

EFFECTS OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES AMONG SEDENTARY COLLEGE WOMEN

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ABSTRACT

The purpose of the study was to find out the effect of yoga practices on selected physiological variables among sedentary college women. For this purpose the 40 college women students in the age group of 21-23 years at Alagappa University sedentary women hostel were selected at random as subjects and were divided into two groups namely control group, experimental group. The training programme was for a period of six weeks. During this period, the control groups were not given any training. The data were collected on the selected physiological variable resting pulse rate, breath holding time and cardiovascular efficiency respectively before training (pre test) as well as after six weeks training (post test). Dependent 't' test was used to find out any significant difference between the pre- and post-test means and any significant difference that exists between the yoga practice group and control group on selected criterion variables. The significance was set at 0.05 level. The result of the study shows the yoga practice has decreased the resting pulse rate and increases the cardiovascular efficiency and breath holding time significantly. It was concluded from the results of the study that yoga practice has brought positive changes in selected physiological variables namely; resting pulse rate, breath holding time and cardiovascular efficiency and it was due to the performance of various Asana Postures, Pranayama, Kriyas, Suryanamaskara and Meditation.

Keywords: Yoga, Pranayama, Kriyas, Suryanamaskara and Meditation.

INTRODUCTION:

Yoga was first summarized and systematized around the second century A.D by patanjali and his yoga sutra is still regarded as the classic work on the subject. Hence patanjali is known as the father of yoga. He has formed a number of yoga sutras regarding yoga. Yoga is universal without distinction of religion, nation, caste, language, colour, age or sex. It is common to all. Yoga is science. Yoga controls one's sense resulting in an integrated personality. Behaviour can also be molded properly leading to balanced personalities. Yoga has complete message for humanity. It has a message for the human mind, and it has also a message for the human soul. The general effects of yoga practice thus:

1. Relief from tension
2. Normalized weight
3. A trim and firm figure
4. Important of our completion
5. Circulation improved
6. Overcome chronic fatigue
7. Lungs become cleaned and strengthened
8. The person becomes slim and flexible

METHODOLOGY:

Forty (N = 40) subjects were selected at random from Alagappa University women's hostel at Karaikudi. For the study, the age group of the subject ranged between 21 to 23 years; the selected students were further divided at random into two group namely experimental group ($n_e=20$) (yogic practice group) and control group ($n_c=20$). All the subjects were normal and healthy female students, the sample was considered as the true representative of population. The control group was not permitted to participate in the experimental training programme. The experimental group was allowed to take part in the regular training programme. The subjects were informed about the purpose of this study in order to secure their full co-operation. The dependent variables are resting pulse rate, breath holding time and cardiovascular efficiency. The experimental group only practiced yogic Asanas, Pranayama, Kriyas, Suryanamaskara and Meditation. All the subjects were tested prior to and after experimentation.

Table 1
Criterion Measure

Sl. no	Criterion variables	Test Items	Unit of Measurement
1	Resting Pulse Rate	Radial artery pulse method	In numbers
2	Breath holding time	Stop watch	In second
3	Cardiovascular efficiency	Hardvard step test	In minutes

The selected group underwent selected yogic exercise for five days in a week with a total period of six weeks and they were tested again, on all dependent variables.

Table 2
Yoga Practice training

Sl. no	Name of the yogic practice	Yoga practice (I and II Week) repetition/duration	Yoga practice (III and IV Week) repetition/duration	Yoga practice (III and IV Week) repetition/duration
1	Savasana	3 minute	5 minute	5 minute
2	Surya namaskar	2 times	3 times	3 times
3	Halasana	1 time	2 times	2 times
4	Bhujangasana	3 times	5 times	5 times
5	Shalabasana	3 times	5 times	5 times
6	Dhanurasana	2 times	3 times	3 times
7	Paschimottasana	1 time	2 times	2 times
8	Chakrasana	1 time	2 times	2 times
9	Uddiyana bandha	2 times	3 times	3 times
10	Kapalbhati (25 strokes)	3 times	5 times	5 times
11	Ujjayi pranayama	10 times	12 times	12 rounds
12	Om kar	12 times	15 times	15 times

13	Padmasana (meditation)	10 times	12 times	12 times
14	Savasana (relaxation)	3 times	5 times	5 times

Dependent 't' test was used to find out any significant difference between the pre- and post-test means and any significant difference that exists between the yoga practice group and control group on selected criterion variables. The significance was set at 0.05 level.

ANALYSIS OF DATA AND RESULT OF THE STUDY:

Table 3
Comparative analysis of selected physiological variables

Variable	Group	N	Mean		Std. Dev.		t-ratio
			Pre	Post	Pre	Post	
Resting Pulse rate	Control	20	78.20	79.13	7.22	7.60	0.74
	Experimental	20	78.43	74.80	7.02	7.05	2.98*
Breath Holding Time	Control	20	7.71	7.82	0.41	0.38	0.25
	Experimental	20	8.09	8.63	0.48	0.46	9.74*
Cardio Vascular Efficiency	Control	20	34.27	34.27	7.14	7.47	1.56
	Experimental	20	32.47	49.60	6.62	6.51	6.52*

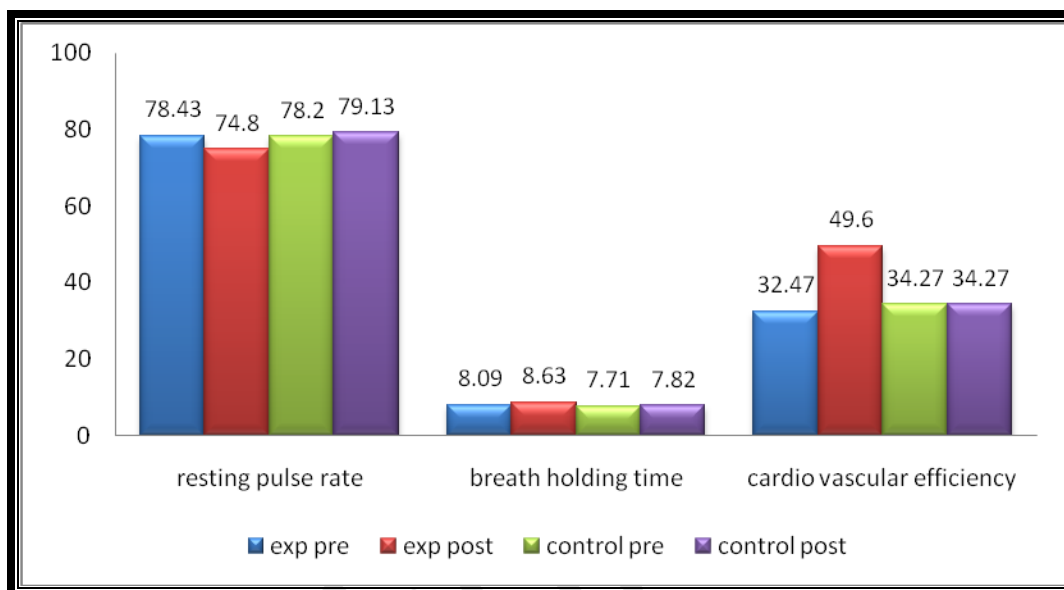
*the mean difference is significant at the 0.05 level

The above table indicates that, there was a significant difference between the pre and post test performance on selected physiological variable namely, resting pulse rate, breath holding time and cardio vascular efficiency, since the calculated 't' values of 2.98, 9.74 and 6.52 respectively are higher than tabulated 't' value of 2.09 at 0.05 level of significance with 19 degrees of

freedom. In the case of control group there was no significant differences in selected physiological variables.

Figure 1

Illustration of comparative analysis of selected physiological variables



CONCLUSION:

Within the limitations and procedures of the present study, the following conclusion, recommendation and suggestions for further study were drawn.

1. The finding of the study showed that the yoga training brings out significant improvement in resting pulse rate of college women.
2. The finding of the study showed that the yoga training brings out significant improvement in breath holding time of college women.
3. The finding of the study showed that the yoga training brings out significant improvement in cardio vascular efficiency of college women.

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