

Physiological Changes in Female Following One Month of Certificate Course in Yoga

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Abstract

Purpose: The purpose of the study was to assess whether yogic training of the same duration (01 month) would cause physiological changes in 42 non-sports female. **Significance of the Study:** generally female do not aware for the exercise but being a responsible citizen she must be aware for her health. **Material & Method:** A total of forty-two (n=42) female subjects were selected from Triveni Complex, Banaras Hindu University, Varanasi. The subjects were attended total twenty-two classes (22 working days) except holidays as per the University rule of holidays. Before and after test data were collected on one month certificate course in Yoga. Paired t test was applied to compare the mean difference between initial and final scores. **Result:** The result of the study indicated that the course of one month Yoga practice improves all the selected physiological variables (Autonomic, Respiratory, and General Health Parameters) in non-sports female.

Keywords: yoga certificate course, physiological changes, female.

INTRODUCTION

According to Ding & Stamatakis (2014) over the last 15 years, Yoga became the most adopted exercise for those female that is not related to sports, and has a normal daily life routine. Because generally, they are housewives and have less time to go outside for regular exercises. In this study 'Female' word related to those who were come into the 1. Non-sports category of female. 2. They were M.A. students of Faculty of Arts and also graduated with the same university. 3. They were hostellers in Saraswati hostel, Triveni Complex, BHU, Varanasi. Their diet and daily routine work were same. They were not engaged any other extra physical activity and meal also. Chronologically their age was in between 20 to 23 years. They were practiced for one hour/day in the morning (06:00 to 07:00 am) and enrolled in the year 2015 session Feb-Mar for the course, and they were totally fit and fine.

There is an elementary four-week part-time "certificate course in yogic practices for better living" for all the higher education students conducted by Yoga Sadhna Kendra, Malviya Bhawan (centre for yoga), BHU, Varanasi, since 1975 (indiatimes.com). It conducted twice in a year. In this course, different types of Asanas (physical postures) in supine lying, prone lying, standing, and sitting positions and Pranayamas (voluntary regulation of the breathing) had been performed. It started and ended with mantra's chanting. Physiological changes are changes that occur within an organism, whether at the level of organism, organ system, organ tissue, and cell, related to normal functioning of a living organism. Many studies showed that there were significant effects of Yogic Asanas and Pranayamas on physiological functions of human body. Tran & others (2001) showed that 3 months of Hath yoga improved health related fitness, Mandanmohan...& others (2003) showed that 45 min practice session of yoga training for 6 months improved lungs functions and other physiological functions. According to B.S.Bal (2010) that 2 hours for 8 week pranayama training program had significant effect on vital capacity. In researcher's view, whether yoga had significant effect, but an hour practice included both asanas and pranayamas for a month only, have significant effect or not.

Procedure and Methodology:

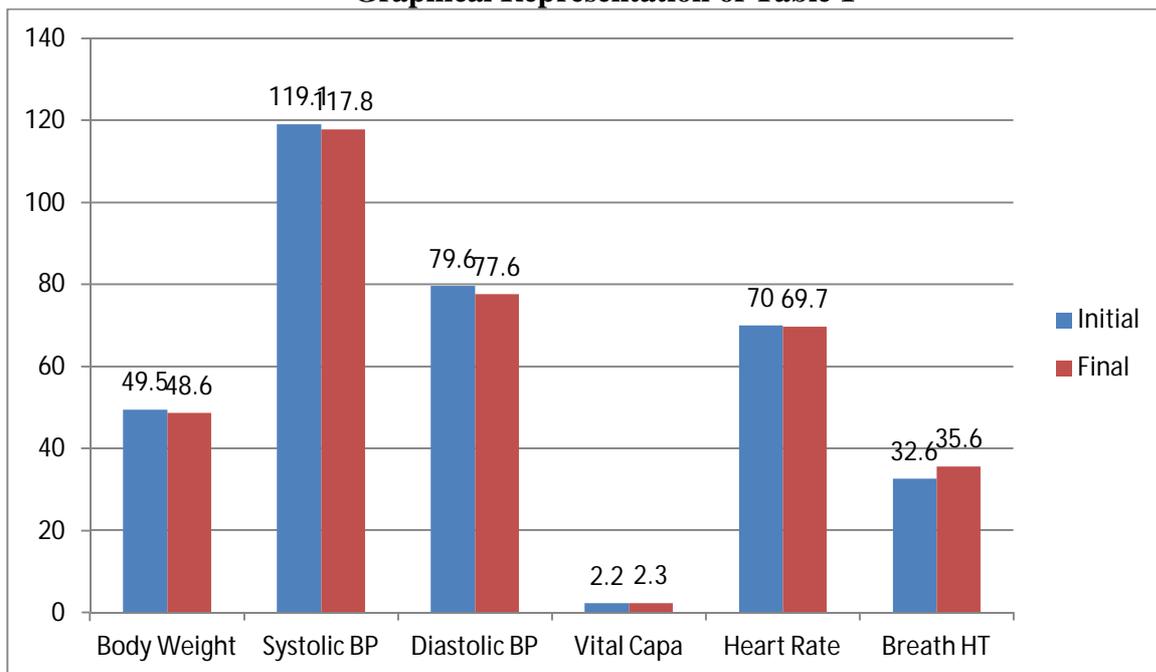
On first day the researcher was introduced her purpose of the study to all over the class of morning session (subject). After that the following parameters were assessed as their initial data: Omron digital weighing machine for body weight, and Blood Pressure (Omron), Vital Capacity by dry Spirometer, breath holding capacity (Sphygmomanometer), to derive heart rate by counting successive QRS complexes, using a clinical electrocardiograph (BPL, India). Again the data obtained at the end of one month as their final data. Both the initial and final scores were compared by using paired t-test. The totals of ‘errors’ made by each subject initially and after 1 month of yogic practice, were noted.

Table 1
Changes in Autonomic, Respiratory, and General Health Parameters. (Mean + S.E)
After 1 Month Yogic Practice in 42 Non-Sports Female

Parameters	Initial Values	Final Values
Body Weight (kg)	49.50+1.12	48.60+1.04
Blood Pressure (mm, Hg)		
Systolic BP	119.10+1.34	117.80+1.28
Diastolic BP	79.60+1.12	77.60+0.99
Vital Capacity	2.20+0.12	2.32+0.08
Heart Rate (beats/min)	70.03+1.38	69.78+1.29
Breath Holding Time (sec)	32.60+1.82	35.60+1.97
Total no. of errors	10.50+0.62	8.40+0.44

P<0.01 (Paired t-test, two tailed)

Figure I
Graphical Representation of Table 1



Result:

There was a significant increase in all the five physiological parameters. Increase breath holding and vital capacity, and a significant reduction in heart rate, systolic and diastolic blood pressure, and body weight.

Discussion:

This study shows that in a group of 42 non-sports hostellers females of BHU, 1 month of yogic practice produced significant improvement in general health (in terms of body weight and BP reduction and improved lung functions).

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