



AN INTEGRATED APPROACH OF YOGA PRACTICE FOR WEIGHT CONTROL: A 12 WEEKS PROSPECTIVE STUDY

Physical Education

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ABSTRACT

Aim of this study was to analyze the yoga practice for weight control for college women. The study was conducted on thirty two college women who were studying Bachelor of Engineering, Anna University, Chennai, Tamilnadu, India. Subjects were randomly assigned equally into two groups, Group -I underwent Yogic Practice Group (n = 16) and Group II (n=16) acted as control Group. The data was collected from the experimental and control groups were statistically examined with Analysis of covariance (ANCOVA). Body Weight, Forearm Circumference, Thigh Circumference, Biceps Skin fold and Triceps Skin fold showed significant difference between the groups.

KEYWORDS:

Body Weight, Forearm Circumference, Thigh Circumference, Biceps Skin fold, Triceps Skin fold

INTRODUCTION

Excess weight gain has become a phenomenon in today's age, when lifestyles have become sedentary, and food more liberal with extra calories. Today our children prefer T.V. (any medal) over their friends and play, merely a reflection of their parents who also somewhere prefer T.V. over socializing or even over spending time with their children (if they spend some time surely some running around will help burn some calories). These are only a few factors, which have resulted in increasing amount of people with the problem of excess weight or obesity.

Stress, wrong food habits (i.e. irregular timings for food, unhealthy (junk) food), lack of exercise, thyroid problem etc. could be some of the reasons resulting in weight gain.

To lose weight, it is important to do so, not just by doing diets, or exercise programs, which are too tedious, which may yield results but which do not keep you that way. Sometimes after sudden loss of weight the skin sags making one feel worse. The best approach is to lose weight gradually and for good. Yoga offers a good solution to this problem. Yoga tones the body in a uniformed manner, unlike any "weight loss program" which claims to decrease ones gluteus by this much inches and waist by this much, leading to side effects. Yoga can be practiced at any age to keep the body supple.

Like many arts and sciences that are profound, beautiful, and powerful, yoga has suffered from the spiritual poverty of the modern world--it has been trivialized, watered down, or reduced to clichés. The deep and eternal essence of yoga has been misrepresented and packaged for personal profit by clever people. At the hands of some, yoga has been reduced to the status of just another exercise program available on videotape. In other contexts, yoga has been presented as a cult religion, aimed at attracting "devotees." Such a haze of confusion has been created around the clear and pure concept of yoga that it is now necessary to redefine yoga and clarify its meaning and purpose.

Yoga defines itself as a science--that is, as a practical, methodical, and systematic discipline or set of techniques that have the lofty goal of helping human beings to become aware of their deepest nature. The goal of seeking to experience this deepest potential is not part of a religious process, but an experiential science of self-study. Religions seek to define what we should believe, while a practical science such as meditation is based on the concrete experience of those teachers and yogis who have previously used these techniques to experience the deepest Self. Yoga does not contradict or interfere with any religion, and may be practiced by everyone, whether they regard themselves as agnostics or members of a particular faith.

In the modern world we have become quite successful in our external achievements--we have created powerful technologies and a variety of products, we are obsessed with accumulating power, wealth, property and objects--and yet we have not been able to create either individual or social peace, wisdom, or happiness. We have only to look around and see the destructiveness of one's weapons, the emptiness of one's pleasures and entertainments, the misuse of one's material and personal resources, the disparities between rich and poor healthily and

unhealthily, and above all, the loneliness and violence of one's modern world. We see that amid all our success in the external world, we have accomplished little of lasting value. These problems will not be solved through new technological developments. Instead, the resolution to these human problems will come only when we discover within ourselves that for which all of mankind is searching--inner peace, tranquility, and wisdom. This attainment is the goal of yoga, for yoga is the practical science intended to help human beings become aware of their ultimate nature.

The process of yoga is an ascent into the purity of the absolute perfection that is the essential state of all human beings. This goal requires the removal of our enveloping personal impurities, the stilling of our lower feelings and thoughts, and the establishment of a state of inner balance and harmony. All the methods of yoga are based on the perfection of our personalities and may help to create a new world order.

If the aspects of our daily lives are well balanced, then certainly we can make progress in yoga in the modern world. Regardless of where we live or what we do, we can create a life conducive to yoga.

The first impression is the best impression. So, spruce up your appearances and take grooming seriously. For many decades, plumpness and obesity has not been in fashion, moreover, it carries a baggage of diseases and health problems along. Yoga--the art of living has always provided with better solutions for mental concentration, staying active and positive strength for the body and mind. So does, it provides the ways for weight loss.

Obesity and plumpness has become an inevitable part of our fast-studded lives. With the increasing intake of junk food the belly's has been increasing corresponding to depleting energies. Adopting yoga as a tool for decreasing weights is a sheer option as it considers all aspects of obesity (mental, physical and emotional). It results in an agile, efficient and slim person and suits to any person of every age. It helps achieving control over minds and behaviors including eating habits of a person, thus, resulting in permanent with "no side-effects".

It is always advisable to study the reasons and symptoms of obesity before shedding sweats for losing them. It provides an advantage, to a person, of having better understanding of his body and avoids him repeating the mistakes as he did earlier. The reasons of obesity lies in the lack of workouts corrupted eating habits (junk food, fats coated food, eating between 2 meals), psychological pressures (depression, frustration, and anxiety), and hereditary tendency and endocrine glands problems.

Once getting aware of the reason for the condition, yoga can support well to the reducing obesity. It has important role to play in the treatment of obesity and its techniques effects the internal glands as well as mental conditions of a person.

The effects of a yoga therapy program were studied on 46 patients of chronic bronchial asthma including exercise capacity, pulmonary

functions and blood gases. Exercise capacity was measured by 3 tests: (i) 12 min walk test: (ii) physical fitness index by modified Harvard step test; and (iii) Exercise-Liability index. Yoga therapy resulted in an increase in pulmonary functions and exercise tolerance. A one-year follow-up study showed a good to fair response with reduced symptoms scores and drug requirements in these subjects. **(Jain, S. C. and Talukdar, B.1991).**

Fifty three patients with asthma underwent training for two weeks in an integrated set of yoga exercises including breathing exercises, physical postures, breath slowing techniques, meditation, and a devotional session, and were told to practice these exercises for 65 minutes daily. They were then compared with a control group of 53 patients with asthma matched for age, sex, and type and severity of asthma, who continued to take their usual drugs. There was a significantly greater improvement in the group who practiced yoga in the weekly number of attacks of asthma, scores for drug treatment, and peak flow rate. **(Nagarathna, R. and Nagendra, H. R. 1985)**

The effects of aerobic exercise training and yoga, a non-aerobic control intervention, on the baroreflex of elderly persons were determined. Baroreflex sensitivity was quantified by the alpha-index, at high frequency (reflecting parasympathetic activity) and mid-frequency (reflecting sympathetic activity as well), derived from spectral and cross-spectral analysis of spontaneous fluctuations in heart rate and blood pressure. Twenty-six sedentary, healthy, normotensive elderly subjects were studied. Fourteen of the sedentary elderly subjects completed 6 weeks of aerobic training, while the other 12 subjects completed 6 weeks of yoga. Heart rate decreased following yoga but not aerobic training. VO2 max increased by 11% following yoga and by 24% **(Bowman, A. J., and et.al 1997)**

METHODOLOGY

The study was conducted on thirty two college women who were studying Bachelor of Engineering, Anna University, Chennai, Tamilnadu India. Subjects were randomly assigned equally into two groups, Group –I underwent Yogic Practice Group (n = 16) and Group II (n=16) acted as control Group. The training period was limited to 12 weeks. All the two groups were tested on selected criterion variables such as Body Weight, Forearm Circumference, Thigh Circumference, Biceps Skin fold and Triceps Skin fold prior to and immediately after the training programme. Body Weight was assessed by weighting machine, Forearm Circumference and Thigh Circumference were assessed by Steel Measuring tape, and Biceps and Triceps were assessed by Skin fold caliper.

Results and Discussion

The data collected from the experimental group and control group prior and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post test means on selected criterion variables separately. The level of significance was fixed at .05 level of confidence to test the 'f' ratio obtained by analysis of covariance on selected criterion variables.

Table – I
THE SUMMARY OF MEAN FOR THE PRE AND POST TEST DATA ON SELECTED VARIABLES OF YOGIC PRACTICE GROUP AND CONTROL GROUP

Criterion variables	Mean	Yogic Practice Group	Control group
Body Weight	Pre test mean	40.21	40.13
	Post test mean	39.71	40.11
Forearm Circumference	Pre test mean	17.5	17.88
	Post test mean	16.94	17.92
Thigh Circumference	Pre test mean	34.43	34.56
	Post test mean	34.27	34.68
Biceps Skin fold	Pre test mean	4.01	4.02
	Post test mean	3.90	4.03
Triceps Skin fold	Pre test mean	6.92	6.92
	Post test mean	6.89	6.93

Table – I shows that mean, of Body Weight, Forearm Circumference, Thigh Circumference, Biceps Skin fold and Triceps Skin between the pre and post tests means of Yogic Practice Group were greater than the Control Group. It was concluded that Yogic Practice Group had

significant improvement in the performance of Body Weight, Forearm Circumference, Thigh Circumference, Biceps Skin fold and Triceps Skin. However control group had no significant improvement in the performance of selected variables.

The analysis of covariance of Body Weight, Forearm Circumference, Thigh Circumference, Biceps Skin fold and Triceps Skin of Yogic Practice Group and control group have been analyzed and presented in Table – II.

Table – II
ANALYSIS OF COVARIANCE ON CRITERION VARIABLES OF EXPERIMENTAL AND CONTROL GROUPS

Criterion Variable	Adjusted Post Test means		Source of variance	Sum of square	df	Mean squares	f - ratio
	Yogic Practice Group	Control group					
Body Weight	39.66	40.15	B	1.89	1	1.89	10.02*
			W	5.47	29	0.19	
Forearm Circumference	17.13	17.73	B	2.84	1	2.84	11.94 *
			W	6.9	29	0.24	
Thigh Circumference	34.02	34.5	B	1.82	1	1.82	15.00*
			W	3.52	29	0.12	
Biceps Skin fold	3.91	4.02	B	0.09	1	0.09	182.1*
			W	0.02	29	0.01	
Triceps Skin fold	6.89	6.93	B	0.02	1	0.02	42.29*
			W	0.01	29	0.01	

Significant at .05 level of confident.
Table value required for significance at .05 level with df 1 and 29 is 4.18

From table – II, the obtained value of 'f' - ratio for Body Weight, Forearm Circumference, Thigh Circumference, Biceps Skin fold and Triceps Skin, for adjusted post test means were more than the table value of 4.18 for df 1 and 29 required for significant at 0.05 level of confidence. The results of the study indicated that significant differences exist among the adjusted post test means of experimental and control groups on the development of Body Weight, Forearm Circumference, Thigh Circumference, Biceps Skin fold and Triceps Skin.

Conclusion

From the analysis of the data, the following conclusions were drawn.

The Yogic Practice Group improved significantly on Body Weight, Forearm Circumference, Thigh Circumference, Biceps Skin fold and Triceps Skin, when compared to the control group.

References

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