

## APPLICATION OF NUTRITIONAL PRINCIPLE AND YOGIC PRACTISE ON BODY COMPOSITION INDICES FOR WOMEN

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### Abstract:

*The present study was conducted to examine application of nutritional principle and yogic practise on body composition indices for women. To achieve that subjects aged from 18-28 years from the bharathiar university. The random group design was used as experimental design in which 30 women were randomly selected and divided in to two equal groups consist of 15 each. After dividing the group namely experimental group and control group. Experimental group under went with yogic exercise and the control group underwent without any specified practices. The selected subjects were initially tested on criterion measures used in the study. After the completion of the initial tests, the subjects underwent training belonging to experimental group with yogic exercise, but the control group had not actively participated in any activity. The experimental group after the six weeks training significant improvement on selected physiological variables (BMI and Lean Body Mass) of indices women.*

### KEYWORDS:

Body mass index, Lean body mass .

### INTRODUCTION

Yoga asana and pranayama are closely inter-related. An aspirant should master asana like padmasana, siddhasana, swastikaasana and sukhasana before he begins to practise pranayama. one can be called the master of a particular asana only when one practises it is very difficult to accomplish this. So it is advisable to begin with any asana suitable to him and practise anuloma pranayama, vilomapranaayama. Gradually, with the help of pranayama, one will get mastery over that asana . Thus pranayama is helpful in getting mastery over asana.

### Nutrition

Nutritional science studies how the body breaks food down (catabolism) and repairs and creates cells and tissue (anabolism) - catabolism and anabolism = metabolism. Nutritional science also examines how the body responds to food. In other words, "nutritional science investigates the metabolic and physiological responses of the body to diet". As molecular biology, biochemistry and genetics advance, nutrition has become more focused on the steps of biochemical sequences through which substances inside us and other living organisms are transformed from one form to another - metabolism and metabolic pathways. Nutrition also focuses on how diseases, conditions and problems can be prevented or lessened with a healthy diet. Nutrition also involves identifying how certain diseases, conditions or problems may be caused by dietary factors, such as poor diet (malnutrition), food allergies, metabolic diseases, etc.

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**Nutrition for Women**

Women need fewer calories but more nutrients than men to be at their best. See how women's needs differ in part 1 of our two-part series. According to the old nursery rhyme, little boys and little girls are made of very different things. While you can fault the rhyme for not being factually accurate, it does highlight an interesting point. In some respects, men and women have different nutritional needs, largely due to differences in male and female hormones. "A woman and man of the exact weight and percentage of fat would burn the same amount of calories for the same amount of exercise," says Sharon B. Spalding, MEd, CSCS, professor of physical education and health at Mary Baldwin College in Staunton, Va. "However men are usually larger with a higher lean weight and will burn more calories."

**Methodology**

The random group design was used as experimental design in which 30 women were randomly selected and divided in to two equal groups consist of 15 each. After dividing the group namely experimental group and control group. Experimental group under went with yogic exercise and the control group underwent without any specified practices. The selected subjects were initially tested on criterion measures used in the study. After the completion of the initial tests, the subjects underwent training belonging to experimental group with yogic exercise, but the Control group had not actively participated in any activity. Yogic exercise was kept as ideal under the control of the investigator. The experimental group underwent training for alternate days for 6 weeks in total.

**Physiological variables**

S.No	Variables	Test items
1.	BMI	Stadiometer weight machine
2.	Lean body mass	Skin fold calliper

**Result and Statistical Technique**

The collected data were statistically analyzed with a paired (samples) t-test to find out the significant improvement between pre and post test means of all groups. The level of  $p > 0.05$  was considered significant.

**Table -1  
COMPUTATION OF 'T'RATIO FOR THE MEAN DIFFERENCE OF PRE AND POST TEST ON BMI**

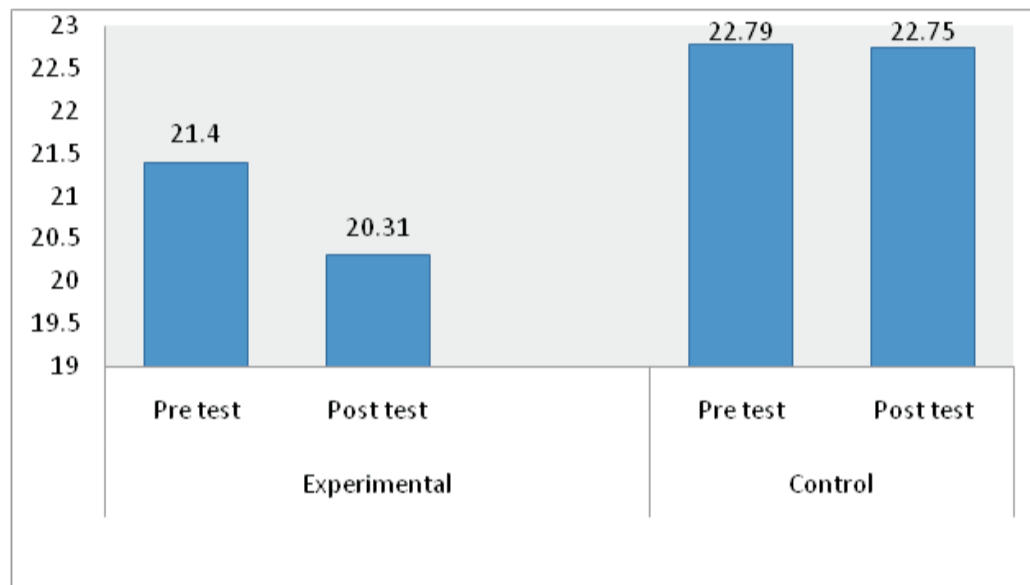
GROUP	BMI	MEAN	SD	N	't' RATIO
Expt.gr.	Pre test	21.40	3.05	15	16.39*
	Post test	20.31	2.94	15	
Contr.	Pre test	22.79	2.39	15	1.96
	Post test	22.75	2.38	15	

\*Significant at 0.05 level (2.14)df(1, 14)

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Table-1, Shows that pre and post test mean values of experimental group and control group were 21.40, 20.31, 22.79 and 22.75 respectively. The obtained 't' ratio for experimental group and control group were 16.39 and 1.96 on BMI. The obtained 't' ratio on experimental group variables were greater than the critical value of 2.14 for df (1, 14). It was observed that the mean gains and losses made from pre-test and post-test were statistically significant. For resulting six weeks practice of yogic exercises produced significant improvement in BMI from the performance of baseline.

**THE MEAN OF VALUE BODY MASS INDEX OF PRE AND POST-TEST ARE PRESENTED GRAPHICALLY IN FIG.1.**



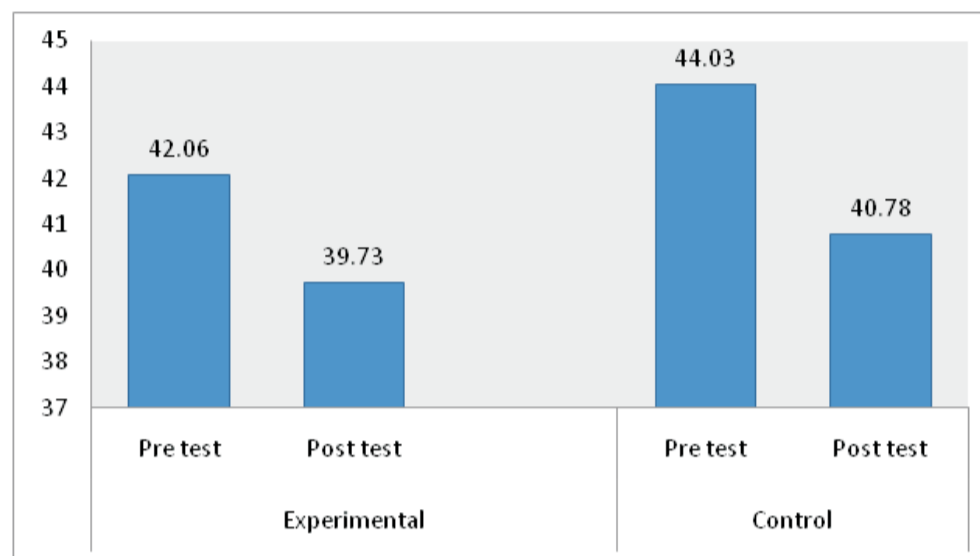
**Table -2  
COMPUTATION OF 'T'RATIO FOR THE MEAN DIFFERENCE OF PRE AND POST TEST ON LEAN BODY MASS**

GROUP	BMI	MEAN	SD	N	't' RATIO
Expt.gr.	Pre test	42.06	3.46	15	13.55*
	Post test	39.73	3.44	15	
Contr.	Pre test	44.03	2.78	15	1.08
	Post test	40.78	10.01	15	

\*Significant at 0.05 level (2.14) df(1, 14)

Table-2, Shows that pre and post test mean values of experimental group and control group were 42.06, 39.73, 44.03 and 40.78 respectively. The obtained 't' ratio for experimental group and control group were 13.55 and 1.08 on lean body mass. The obtained 't' ratio on experimental group variables were greater than the critical value of 2.14 for df (1, 14). It was observed that the mean gains and losses made from pre-test and post-test were statistically significant. For resulting six weeks practice of yogic exercises produced significant improvement in lean body mass from the performance of baseline.

THE MEAN OF VALUE BODY MASS INDEX OF PRE AND POST-TEST ARE PRESENTED GRAPHICALLY IN FIG.2



#### DISCUSSION ON FINDINGS

The purpose of the study was the application of nutritional principles with yoga practice on body composition indices of women.

It was found that the mean value of body mass index was 21.40 that the pre-test value and after post-test value was 20.31. The mean of value Present body fat was 24.78 that the pre-test value and after post-test-value was 22.41. The mean value of lean body mass was 42.06 that the pre-test value and after post-test value was 39.73.

The result of the study showed that there was no significant improvement in body mass index, present body fat and lean body mass due to six weeks training of 0.05 level confidences for control group.

Further the result of the study showed that there was significant improvement in body mass index, present body fat and lean body mass due to six weeks training of 0.05 level confidences.

#### CONCLUSION

It was concluded that individualized yogic exercise group showed a statistically significant positive sign over the course of the treatment period on selected physiological variables (BMI and Lean Body Mass) of indices of women.

The results of comparative effects lead to conclude that yogic exercise (experimental) group has significant improvement on selected physiological variables (BMI and Lean Body Mass) of indices women as compared to their performance with control group.

#### REFERENCES

1. Aclarz PE, Palao JM, Elvira (2009) Determining the optimal Load for Resisted Yoga Training, Volume 23, Issue 2, Pages 480-485.
2. Beringer M, VomHeede A, Mathews M; Mester J (2011) Effects of pranayama on motor performance skills in children and adolescents; A meta analysis, *PediatrExerc Sci.* May;23 (2); 186-206.
3. Clark KP, Stearne DJ, Walts CT; Miller AD (2012) The Effects of pranayama training, May 2012 Volume 26, Issue 5, Pages 1331- 1339.
4. Delecluse C (1997) Influence of basthrika on sprint running performance. Current findings and implications for training, *Sports Med.* Sep;24(3);147-56.
5. Hrysomallis C (2012), The pranayama training on sprinting and jumping performance, *J Strength Cond Res.* Jan;26(1);299-306.doi;10.1519/JSC.0b013e3182185186.
6. McGuigan MR, Wright GA, Fleck SJ (2012) pranayama training for football players: Does it really help sports performance? *Int J Sports Physiol Perform*, March 7(1):2-5.