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## Effect of yogic exercises and pranayam on the physical fitness and physiological fitness of adult women

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### Abstract

Scholar selected effect of yogic exercises. (Asanas) and pranayama of physical fitness and physiological fitness variables of adult women. For the study scholar selected. 40 adult women of 40-45 yrs age the average age was 43.5 yrs. The scholar designed 3 months Yogasanas and pranayama training of these selected. Adult women. The physical fitness and physiological tests. Before starting the training were conducted and after the completing the training of 3 month duration again the post test of physical fitness and physiological fitness variables were conducted. The comparisons of the scores of pretest and posttest was done by calculating the 't' values and it was compared with tabulated 't' values at 0.01 level of significance and 39 degree of freedom the calculated 't' values were greater than tabulated 't' values and it was concluded that there is positive significant effect of Yogasanas and pranayama training on physical fitness and physiological fitness of adult women.

**Keywords:** Effect of yogic exercises and pranayam on the physical fitness and physiological fitness

### Introduction

It was observed by the scholar that Indian adult women after the age of 45 yrs and above have to face many physical and physiological problems. They get tired soon by household work as well as their body fat increased and because of body fat weight increase their BMI and WHR also increased. They get tired soon in performing any work or even little distance walking. These women are not able to do physical exercises or they do not do any Gym exercised to become physically fit. The scholar thought that we are having treasure of fitness in the form of Yogasanas and pranayama which can be perform by any one at any age to become fit. Yogasanas and pranayama are the advocated by Adinat Shankar in the form of hath yoga Muni Patanjali also advocated Yogasanas and pranayama in book form in "Patanjal Yoga Pradeepika" In these book the Yogasanas Pranayama and mudras are describe in detail whereas Yogasanas and pranayama too. Yogasanas and pranayama also describe in "Shree Mad Bhagwat Geeta" and also in "Vedas"

Yoga is one of the prominent six systems of Hindu philosophy originated in the period of Vedic age, the exponent of which is said to be Patanjali" Yogasanas are different body postured to improve the flexibility, strength endurance of the body. Pranayam are breath regulation. There are eight stages of "Astang Yoga" Yam, Niyam, Assanas, Pranayam, Pratajhar, Dharma, Dhyana and Samadhi.

The Vedic education was on excellent blend of moral, ethical, spiritual Intellect and social element needed to create harmonious personality.

### Methodology

The scholar selected a study entitled. "Effect of Yogasanas and pranayama on the physical fitness and physiological fitness of adult women." For the research study the scholar selected 40 adult women. Their age was between 40-45 years. The average age was 43.6 yrs. The scholar selected Yogasanas 5 standing asanas 5 sitting asanas, 5 asanas lying on back 5 Asanas lying on abdomen. The scholar selected the following pranayama for training i) Nadi sodhan ii) Chandra nodi sodhan. iii) Surya Nadi Shodhan iv) Anulom Vilom v) Bahya Tribandh Pranayam vi) Ujjai pranayam vii) Chandra Bhedi Pranayam viii) Surya Bhedi Pranayam ix) Bhramari pranayam x) Kapalbhata kriya xi) Omkar Jap.

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The training schedule was daily the training of selected adult women was scheduled at 6-30 am to 8-30 am. The scholar selected 5 assistants to supervise the training of women and correcting their errors. 6-30 to 6-44 am warming up exercises. 6-45 to 7-30 am Yogasanas practice 7-30 to 8-15 am pranayama 8-15 to 8-30 am relaxation. The training was designed for 3 months following Yogasanas were given to women

**Standing Asanas:** Tadasana, Vakhsasana, Trikonasana, Tiryak trikonasana & Janu shirsana.

**Sitting Asanas:** Paschimotasana, Wakrasana, Ardhamasyendrasana, Gomukhasana Paervatasana.

**Lying on abdomen Asanas:** Ek pad shalbhāsana, Dwipad shalbhāsana, Bhujangāsana, Nabhyāsana, Makarāsana. These asanas were performed under the supervision of scholar and his assistant. Each asana posture was maintained for 3 to 40 seconds by each participant after the practice of Yogasanas the subjects were sitting in sukhasana for performing pranayama. In the beginning the Nadisodhan was performing by all the adult women after that all women were performing following pranayam. Bahya Tribandha pranayam, Ujjay I pranayam with tribandha, Chandra bhedhi pranayam, surya bhedhi pranayam, bharami pranayam, kaplbhati kriya and omkar jap for 21 times. Each pranayam was performing for 5 times.

Before starting the Yogasanas and pranayama training, scholar himself demonstrated all Yogasanas and pranayama. The scholar also divided 40 adult women in 5 groups of 8 women in one group and assistants of scholar were in charge of these 5 groups. Scholar was supervising all these 5 groups. Before starting the training of Yogasanas and pranayams the scholar conducted physical fitness test and physiological test of these selected women physical fitness component selected by scholar for adult women were 3 km walk time, sit and reach test for flexibility sit ups for abdomen strength and

modified pull ups physiological components were Body Mass Index (BMI) Waist Hip Ratio (WHR) breadth holding capacity and pulse Rate.

Before starting the Yogasanas and Pranayam training scholar conducted pretest of physical fitness components and physiological components and calculated means and standard deviation which is given in table No 1 below.

**Table 1:** Means and standard deviations of physical fitness and physiological fitness variables

Physical fitness variables			
No	Physical fitness variables	Means	Sd
1	3 km walk	25.2minutes	2.6
2	Sit and reach test	5.7	2.2
3	Sit-ups for abdomen strength	5.8	2.7
4	Modified pull-ups arm strength	6.2	3.2
Physiological variables			
1	Body Mass Index	27.5	3.2
2	Waist hip ratio	1.9	0.32
3	Breath holding capacity	25 sec	3.1
4	Pulse Rate	89.2	3.2

**Source:** From pretest scores of adult women Physical fitness and Physiological fitness

### Discussion

The above table number 1 indicates the pretest mean of 3 km walk is 25.2 and standard deviation is 2.6. The mean of sit and reach is 5.7 inches and standard deviation is 2.2. The mean of sit up is 5.8 and standard deviation is 2.7, the mean of modified full ups is 6.2 and standard deviation is 3.2. The mean of body mass index is 27.5 and standard deviation is 3.2. The mean of waist hip ration is 1.9 and standard deviation is 0.32. The mean of breath holding capacity is 25 second and standard deviation is 3.1. The mean of pulse rate is 89.2 and standard deviation is 3.2.

After 3 months training of Yogasanas and pranayama scholar conducted post test of physical fitness and physiological fitness variables and are given in table number 2 below.

**Table 2:** Means and standard deviations of post test scores of physical fitness and physiological fitness variables

Physical fitness variables			
No	Physical fitness variables	Means	Sd
1	3 km walk endurance	21.1mn	2.2
2	Sit and reach test flexibility	8.2	2.00
3	Sit ups for abdomen strength	8.8	3.2
4	Modified pull ups for arm strength	10.2	2.3
Physiological fitness variables			
1	Body mass index	24.3	3.2
2	Waist hip ration	1.0	0.23
3	Breath holding capacity	30.0sec	3.4
4	Pulse rate	80.0	3.5

**Source:** From the post test scores means and standard deviations of physical fitness and physiological fitness variables

### Discussion

The above table number 2 indicates the post test means and standard deviations of physical fitness and physiological fitness variables.

To find out the effect of 3 months training Yogasanas and

pranayama on the physical fitness and physiological fitness of adult women the comparison of pretest and posttest means and standard deviation were made by calculating 't' value and compared calculated 't' with the tabulated 't' which is given blow in table number 3.

**Table 3:** Means standard deviation of pretest and posttest of physical fitness and physiological variables and calculated and calculated 't' values and tabulated 't' values  
Physical fitness variables

No	Physical fitness variables	Pre test		Post test		Cal't'	Tab 't'
		Mean	Sd	Mean	Sd		
1	3 km walk (endurance)	25.2min	2.6	21.1mn	2.2	7.59	2.7 at 0.01 level of significance and 39 degree
2	Sit and reach (Flexibility)	5.7	2.2	8.2	2.00	5.31	
3	Sit ups (Abdomen Strength)	5.8	2.7	8.8	3.2	4.91	
4	Modified pull ups	6.2	3.2	10.2	2.3	6.64	

## Physiological fitness variables

No	Physiological fitness variables	Pre test		Post test		Cal't'	Tab 't'
		Mean	Sd	Mean	Sd		
1	Body mass index	27.5	3.2	24.3	3.2	4.44	2.7 at 0.01 level of significance and 39 degree
2	Waist hip ration	1.9	0.32	1.0	0.23	7.55	
3	Breath holding capacity	25 sec	3.1	30.0sec	3.4	6.84	
4	Pulse rate	89.2	3.2	80.0	3.5	12.26	

**Source:** From pretest, post test scores means and standard deviations of physical fitness and physiological fitness, variables and calculated 't' values and tabulated values at 0.01 level of significance and 39 degree of freedom

**Discussion**

The above table number 3 indicates the means standard deviations and calculated 't' and tabulated 't' at the 0.01 level of significance and 39 degree of freedom. It is observed that the tabulated 't' values of physical fitness variables and physiological variables are greater than the tabulated 't' at 0.01 level of significance and 39 degree of freedom that proved that there is positive significant effect of 3 months training of Yogasanas and Pranayama on the physical fitness and physiological fitness of adult women. Hence following conclusions are drawn by the scholar.

**Conclusion**

The scholar tested the hypothesis which the scholar made that there is positive effect of Yogasanas and Pranayama on the physical fitness and physiological fitness of adult women Is accepted. Hence the conclusion is drawn that there is positive effect Yogasanas and Pranayama on the physical fitness and Physiological fitness of adult women.

**References**

1. Acharya Shri Aditya Yogi. Yoga Vidnyan Musle's Reprographic; Prabhadevi. 1999.
2. Behanan JM. Yoga – A Scientific evaluation Mc Million comp Newyork. 1937.
3. Dr. Madhavi Sunitha. Effect of Pranayam and Yogasanas on body weight and fat fold thickness in obese women. 4<sup>th</sup> international conference on Yoga research Kaivalydhm. Lonavala. 2002, 410-403.
4. Dr. Kamlesh ML. Foundation of Physical Education Metropolitan press.
5. Dr. Sita Rama Raju P, *et al.* Effect of Different types of Pranayam on Bronchial Asthma” 4<sup>th</sup> international conference, on yoga Research Kaivalydhm, Lonavala. 2002, 410403.
6. Gopal KS, *et al.* The cardio respiratory Adjustment, in Pranayam with and without Bond has in Vjrasana” Ind.J. Medicine. 27, 686.
7. Hatyog Swatma Ram Vidhyarthi Press Pune.
8. Ibid
9. Patanjol Yog Predeepika Gorakhpur
10. Prof. Ganguli SK, *et al.* Yoga in relation of physical fitness and academic achievement of school going boys. 4<sup>th</sup> international Yoga Research conference, Kaivalyadham Lonavala. 2002, 410-403.

11. le R VC. Mysterious Kundini, Taraporwala sons and comp. Bombay.
12. Singh RH, Uddpa. Scientific basis of Yoga JAMA, 220, 1364.
13. Suryakant Maharana. Kundalini Yoga An explanation for its possible relevance to adopting life. 4<sup>th</sup> international Yoga research conference Kaivalydhm Lonavala. 2002.
14. Uddpa *et al.* Studies on physiological effect of the yogic Relaxation postures Savasana. J Res. Indian Med. Yoga and Homeo. 13/1, 147.
15. Wengaz MA *et al.* Some studies on established Yogi's circulation “Foundation of contemporary Yoga.