



P-ISSN: 2394-1685  
E-ISSN: 2394-1693  
Impact Factor (RJIF): 5.38  
IJPESH 2017; 4(1): 16-18  
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www.kheljournal.com  
Received: 05-11-2016  
Accepted: 06-12-2016

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## To assess the effect of selected asana on abdominal strength and cardiovascular endurance variables of post graduate female students

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### Abstract

For this study 30 female PG students were selected from Karnataka state women's university, Bijapur, through fitness test it was decided that all the students were suitable for this study. Trainees of the experimental group were trained daily for an hour which includes some yogic breathing exercise for five minutes followed by Asanas and Pranayam. The training Schedule included-Asanas and physical exercises such as abdominal strength test, Harvard test for Endurance, Shoulder flexibility test for assess the effect of asana on fitness of female students. "t" test was used to find out the significant of mean difference of physical fitness among pretest and post test. The statistical significant level was 0.05. The "t" proved that there is significant effect of twelve week training on abdominal strength and Endurance of female students.

**Keywords:** Yoga, endurance and abdominal strength

### Introduction

The word "yoga" is derived from the Sanskrit root yuj, which means 'to bind', or 'to join', or 'to attach', or 'to yoke'. According to Swami Satyananda Saraswati "yoga is not an ancient myth buried in oblivion. It is the most valuable inheritance of the present. It is the essential need of the today and the culture of tomorrow". The Sanskrit term yoga is most frequently interpreted as the "union" or "communion". It is the true union of our will or consciousness (jiva-atma) with the will or super conscious of god (parama-atama).

Yoga is a timeless pragmatic science evolved over thousands of year dealing with the physical, moral being of man as a whole.

Yoga is universal benefiting to all people of all ages. The study of yoga is fascinating to those with a philosophical mind and is defined as the silencing of mind's activities which leads to complete being. of human beings and increased the dependence on machines for all the work. Manual labour has been considerably reduced and physical activity is considered to be low in dignity and hence avoided. Therefore, general physical fitness has come down, and to restore it, human beings will have to revert to the age old habits.

Physical fitness includes speed, flexibility, rhythm, power, strength, coordination, muscular endurance, cardiovascular endurance, agility etcetera. These characters are all equated with the healthy functioning of the body. Another important part of physical fitness in the athletic powers. The various aspects of physical fitness and the skill are interrelated.

### Exercise

Johnson and Stobberg (1971) stated that the word "exercise" refer to conscious and purposeful activity. Usually if sufficient intensity to increase to some degree of respiratory and circulatory function. If refers only to the actual movement process at the time it occurs and should not be confused with the conditioning or training. Physical exercise in any organized activity that involves continuous participation. Exercise occupies a leading role in keeping a person fit. It will be difficult to adjunct one's life in terms on stress, diet, and sleep and so on without proper exercise. Studies carried out by different expert of field reveals that yoga is best art to develop harmonious personality.

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**Definition of the terms**

**Yogasana:** Asana means posture or pose, which states that poses should be comfortable, easy and steady in position. Postures balances the physical body, reduces tension, improves flexibility, maximize the flow of energy.

**Pranayama:** In Sanskrit ‘Prana’ means vital energy or Life force or cosmic energy. ‘Ayama’ means control or regulation. Thus the pranayama is act of control or regulation of breathing to integrate vital force.

Rhythmic breathing calms down the mind. Prana on the physical plane is connected with the functioning of the mind. By controlling prana, the waves of the mind are controlled and develop the power of concentration and clarity of thought.

**Abdominal Strength:** The maximum force a muscle/group of muscles can apply against a resistance.

**Endurance:** Muscular Endurance is the ability of a muscle or group of muscle, to work continuously/for a long time without tiring.

**Statement of the problem**

The Purpose of the present study is to investigate “To assess the effect of selected Asana on strength and cardiovascular Endurances variables of Post Graduate Female students”, of Karnataka state women’s University, Bijapur

**Hypothesis**

1. It is Hypothesized that selected yogasana was significantly improved on the on Abdominal Strength and Endurances variables level among Post Graduate students of the Karnataka state women’s University, Bijapur.
2. It hypothesized that the selected yogasana would leads improve the management of strength and Endurances variables of the students.

**Methodology**

The purpose of this study is to find out “Effect of selected yogasanas on Abdominal Strength and cardiovascular Endurances variables level among Post Graduate students of Karnataka state women’s University, Bijapur.

**Selection of the subjects**

In the present study single group design procedure was followed. A group of 30 Post graduate students was selected from Karnataka state women’s university; the selected subjects were under gone six weeks yogasanas training. The researcher was adapted Pre-test and Post-test procedure to assess the differences.

**Selection of the Variables**

The Physical and Psychological variable selected for the present study were strength and Endurances variables.

**Tools of the study**

1. Abdominal strength test,
2. Harvard test for cardiovascular Endurances e was used to collect data
3. Stop watch

Selected Yogasana and pranayama for the Training as following

1. Standing Asanas: Tadasana, Vrikshasana, Hanumanasana.
2. Sitting Asanas: Padmasana, Paschimottanasana.
3. Proline Asanas: Salabhasana, Dhanurasana, Bhujangasana.
4. Supine Asanas: Naukasana, Sarvangasana, Halasana,

Matsyasana, Shavasana.

5. Pranayama. Yogic breathing, Anuloma-Viloma, Nadi Shodhana, Bramari.

**Collection of data**

Abdominal strength test and Harvard test for cardiovascular Endurances was conducted to collect data test in the Karnataka state women’s university Playground, the data was collected at from subjects to asses Pre-test and Post-test effect of Yoga Training on strength and endurance variables

**Statistical technique**

T-test was applied to assess the significant difference in mean score of Pre- test and Post- test.

**Discussion and Analysis of data**

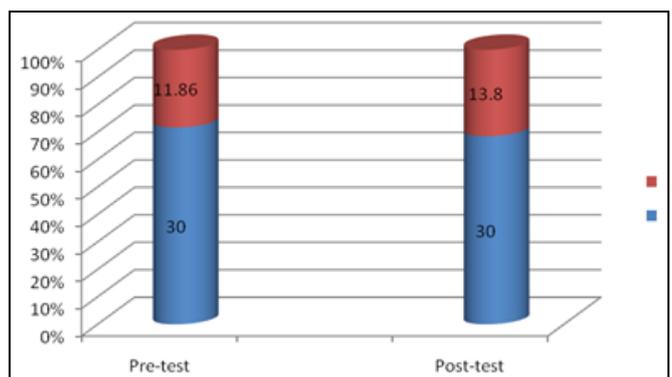
The purpose of the study was to see the Experimental “Effect of selected yogasana on Abdominal Strength and cardiovascular Endurances variables level among post graduate students.” The obtained data was calculated as per the norms using such as Mean, Standard deviation and t value for the obtained pre-test and post-test.

**Table 1:** showing the pre-test and post–test for abdominal strength performance.

Abdominal strength	Sample size	Mean	SD	Calculate Value	Table-value
Pre-test	30	11.86	2.59	-6.302	2.045
Post-test	30	13.80	2.56		

The level of significant 0.05=Table value=2.045.

Table no.1 indicates that the t value is more than the table value that is 2.045, hence it is significant. The pre-test Mean value is 11.86 and the post-test Mean value 13.80. The post-test Mean value is greater than pre-test Mean value. It shows significant improvement in the abdominal strength performance of females owing to the six weeks yogasanas training.



**Fig 1A:** showing the yogic training effect on abdominal student and cardiovascular endurance of female students

**Table 2:** Showing the pre-test and post–test for cardiovascular endurance performance.

cardiovascular endurance	Sample size	Mean	SD	Calculate Value	Table-value
Pre-test	30	120.66	14.80	4.671	2.045
Post-test	30	112.73	13.98		

The level of significant 0.05=Table value=2.045.

Table no 4.3 indicates that the t value is more than the table value that is 2.045, hence it is significant. The pre-test mean value is 120.66 and the post-test mean value 112.73. The post-

test mean value is greater than pre-test mean value. It shows significant improvement in the cardiovascular endurance performance of females owing to the Twelve weeks yogasana training.

### Conclusion

The result of the study generally supported to the proposed hypothesis the selected yogasana training, should play a vital role in improving the performance of Abdominal Strength and cardiovascular Endurances. Performance of the abdominal strength, cardiovascular endurance, level have been influenced by twelve week training, hence yoga should be the part of curriculum of all the stage to notice harmonious development among the students

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