



INFLUENCE OF PHYSICAL EXERCISES AND YOGIC PRACTICES ON WORKING WOMEN OF LUCKNOW

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ABSTRACT

The purpose of the study was to analyze the influence of physical exercises and yogic practices on working women in Lucknow. We determined whether the health disorders (Asthma) and stress induced disorders (lower back pain) would be improved by the selected physical exercises and yogic practices. It is concluded that the practice of yoga has long term benefits. The improved lung function, the proper method of breathing and the psychological tranquility help the chronic sufferer of asthma. Yogasanas also reduce lower back pain. The decreases in the pain are mainly on account the effect of yoga. There was also significant increase in the lower back flexibility. Based on the analysis, a list of recommendations was also drawn.

Keyword: Meditation, Massaging, Flexibility and Lower Back.

INTRODUCTION

Patanjali enumerates the means of yoga as the eight limbs or Ashtanga Yoga or stages of yoga for the quest of the soul. They are Yama – abstinences, Niyama – observances, Asanas – posture, Pranayama – breathing, Pratyahara – withdrawal, Dharana – concentration, Dhyana – meditation, Samadhi - absorption (A state of superior consciousness brought about by profound meditation, in which the individual aspirant becomes one with the object of his meditation).

Education is a series of experiences that enable an individual to better his understanding of new experience. Physical education is an indispensable part of education. Among the various activities offered in physical education, 'asanas' is an important activity mainly for the development of flexibility. In present time, human beings are suffering from many diseases due to laziness, fast working machines, computers, mobiles etc. We all know that health is the nation's wealth. Most of us are afraid of taking modern drugs and want to preserve health through exercises.

The body is a suitable vehicle, with which, the soul can undergo the divine journey. "I must be worthy of life, I am being well fed, well exercised and well rested, let me be well", must be the slogan of everybody.

Yoga Practice

Yoga provides linkage between body, mind and soul. Yoga starts from cleanliness of body and mind through a process. Yoga makes the mind go deep into the subconscious level and purifies the accumulated evil thoughts.

Yoga is divided into four main groups, namely Bhakti yoga, Karma yoga, Raja yoga and Jnana yoga. Among these, Bhakti yoga and Karma yoga are practiced by a person who is having the natural gift of God by birth. Jnana yoga is practiced by the highly gifted persons in their matured life. Raja yoga is the technique that is practiced by all the normal human beings. It was formulated stage-wise by Yoga Guru Patanjali, who is said to be the father of Yoga.

India is a great country with very ancient heritage and highly organized civilization. Hence, the whole world is expecting us to guide the world, in the proper way. Our Rishis and Yogis are the moulders of the civilization. They have formulated the way of life, methods of living, and finally the aim to be attained in human life. They devised the method of attaining the link between body, mind and universal soul. This method is called yoga.

Physical Exercise

Physical exercise is any organised activity that involves continuous participation. Exercise occupies a leading role in keeping a person fit. It will be quite difficult to adjust one's life in terms of stress, diet, sleep and so on without proper



exercise. According to Plato, lack of activity destroys the good condition of every human being. Exercise builds and maintains physical fitness. If you make an investment in exercise it makes you conscious of other health habits. You are not about to waste your investment.

Exercises to be done before meditation

Eyes Rotation (12 times clockwise, then 12 times counter clockwise)

Neck Exercises

Arms Rotation

Upper Body Twists

Hip Rotation

Knee Exercises

Feet Exercises

Bending and Stretching Exercises

These exercises are done two to three times before meditation.

Exercise to be done after meditation

Jumping & Shaking (upper & lower limbs)

Eyes Rotation

Upper Body Twist

Hip Rotation

Bending and Stretching Exercises

Massaging

METHODOLOGY

Date Collection

To carry out this investigation, working women from Lucknow state, who had lower back pain and asthma, were selected. Thirty subjects, among the isolated, were selected at random. Their age ranged from 20 to 50 years. The subjects were screened by a competent Medical Officer who made a through medical examination to ascertain the possible causes for back pain and asthma and identified the subjects who could not suffer any contra-indication owing to administration of yoga and physical exercises. The yoga treatment for eight weeks was carried out, one hour per day in the evening (Monday to Saturday). A questionnaire was administered to the prospective subjects, before and after the treatment of eight weeks. The data (responses) were collected and analyzed. Sit and Reach Test was conducted to find out the back flexibility.

Wright's Peak Flow Meter and Nose Clip were used to find out the peak flow rate for asthma patients.

Peak Flow meter is a simple instrument, very useful device to assess the air-ways function. The subject takes in a deep breath, and then tries to blow it out as forcefully as possible through the mouth piece of the instrument. The meter reading in the instrument moves fast and indicates the rate of maximum flow of air while breathing out. The reading is expressed in litre per minute.

To find out the severity of lower back pain, a lower back symptoms questionnaire was used. Sit and reach test was also conducted and measured.

The initial and final measurements of flexibility of spine were recorded. The scores of each questionnaire were counted and compared.

RESULETS AND DISCUSSION



The purpose of the study was to find out the influence of physical exercises and yogic practices, for a period of 8 weeks training, on lower back pain and asthma among the working women. The data were statistically analysed to assess the significance, at 0.05 level of confidence. The required t-value was obtained from the Table, for the level of significance. Since the data to be compared, and the degree of freedom, chosen was $N_1 + N_2 - 2$, the 't' ratio test was employed. For lower back pain subjects, the mean of the initial test for back flexibility, was 18.93 and standard deviation was 3.11. And final test mean score was 22.16 and standard deviation was 3.09.

The null hypothesis was put the test by subjecting the difference in the Means of the subject to statistical analysis of t-ratio, as recommended by Clarke and Clarke.

The 't' ratio was calculated to test the significance of difference between the pre-test and post-test findings of sit and reach test, for the lower back pain subjects, before and after yoga (asanas).

As the obtained 't' value of 4.0345 was greater than the table value, at 0.05 level of 1.96 the null hypothesis was rejected and the difference was found to be significant. This means that the practice of yoga is very effective in the treatment of lower back pain. The obtained results, pertaining to this study, has been presented in the following Table.

Table 1
Computation of 't' ratio for the sit and reach test scores, before and after physical exercises & yogic practices, of working women in Lucknow.

	Means	Difference between the Mean	Standard error of the difference between the Means	't' – ratio
Before Yogasanas	17.37	3.9	0.82	4.76
After Yogasanas	21.27			

df= $N_1+N_2 - 2$ $30 + 20 - 2 = 58$ Table values = 1.96

Since the obtained 't' value was greater than the table value, so it is significant.

Table 2
Computation of 't' ratio for (range of pain) Questionnaire test scores, before and after physical exercises and yogasanas of working women in Lucknow.

	Means	Difference between the Mean	Standard error of the difference between the Means	't' – ratio
Before treatment (or) Yogasanas	13.47	2.04	0.83	2.46
After treatment (or) Yogasanas	11.43			

df= $N_1+N_2 - 2$ Table values = 1.96

Since the obtained 't' value was greater than the table value, so it is significant.



Table 3
Computation of Mean, Standard Deviation, Standard error of the Mean and ‘t’ ratio for the peak flow rate of Asthma Patients before and after treatment.

	Means	Difference between the Mean	Standard error of the difference between the Means	‘t’ – ratio
Before treatment (or) Yogasanas	3.80	1.22	0.189	6.455
After treatment (or) Yogasanas	5.02			

df= N1+N2 – 2 30 + 30 – 2 = 58 Table values = 1.96

Since the obtained ‘t’ value was greater than the table value, so it is significant.

CONCLUSION

It is concluded that the practice of yoga has long term benefits. The improved lung function, the proper method of breathing and the psychological tranquillity help the chronic sufferer of Asthma to live a trouble free and meaningful life. Yogasanas also reduce lower back pain. The decreased in the pain is mainly on account of the effect of yoga. There was also significant increase in the lower back flexibility, for lower back pain subjects, and peak flow rate for asthma patients. Severe cases took more time for cure.

Yogasanas reduces lower back pain. The decrease in the pain proved that the obtained results were mainly on account of the effect of yoga. There was significant increase in the lower back flexibility, for women with lower back pain and peak flow rate for women with asthma. Severe cases took more time for cure.

Moreover, yoga (asanas) is one of the common causes for improvement in lower back pain and asthma, the rate of improvement may differ. It works much faster in some cases over others. This is due to many reasons like travelling distance to their work place, length of service, nature of job, nature of treatment etc.

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