



EFFECT OF YOGASANA ON RANGE OF MOVEMENT AT SELECTED JOINTS AMONG SEDENTARY MEN

(Received on: 13 April 2015, Reviewed on: 23 May 2015 and Accepted on: 12 Aug 2015)

Dr. Neeraj Pratap Singh, Assistant Professor
Department of Physical Education, C.C.S.P.G. College,
Hewara, Etawah, U.P.



Dr. Nikhil Kumar Rastogi, Assistant Professor,
Department of Physical Education, C.S.J.M. University, Campus,
Kanpur, U.P.

Abstract

The purpose of the study was to investigate the effect of yogasana on range of movement at selected joints among sedentary men. The age ranged between 13 to 19 years. Total 15 sedentary men were randomly selected for the study. All subjects were assigned as experimental group. Experimental group performed asana for six weeks. Results show the significance difference in range of movement at selected joints among sedentary men.

Key Words: Yogasana, Hip, Ankle & Wrist Movement.

Introduction

Yoga is a way of life, which can be practiced by any human being regardless of age, sex and conditions of health and thus it is based on general physical and spiritual laws which operate all mankind alike. Asanas are physical exercises enabling the body to be physically fit. Yogic exercises help both in prevention and treatment of diseases. Different exercises are recommended for different system of the body. There are three major joints to consider when teaching a Squat: the hip, the knee, and the ankle. If any one of these three joints is limited

in its range of movement (ROM), then any of the squatting poses will be awkward and uncomfortable. Range of movement or (ROM), is the distance (linear or angular) that a movable object may normally travel while properly attached to another object.

Methodology

The purpose of the study was to analyze the effect of yogasana on range of movement at selected joints among sedentary men.

For this purpose 15 sedentary male were randomly selected as subjects. These subjects age ranged from 25 to 30 years. All the subjects were assigned to experimental treatment that was consisting of selected asana respectively for six weeks. Hence the study made is of the random group design. The pre and post tests were taken for all the subjects before and after the training respectively.

The criterion measure for measuring the range of movement at wrist (downward flexion), hip and ankle (Planar Flexion) Joints were measured with the help of goniometer in degree.



Treatment Programme

Asanas were selected for their contribution to enhance stretch ability of muscles and for improving mobility of joints. To finalize list of asana, the scholar consulted with the experts and studied the related literature also. The finalized list is as follows:

Asanas	Duration	Repetition
Tadasana	30 sec.	02
Trikonasana	30 sec.	02
Ardhakatichakrasana	30 sec.	02
Paschimottanasana	30 sec.	02
AkarnaDhanurasana	30 sec.	02
Matsyasanā	30 sec.	02
Halasana	30 sec.	02
Bhujangasana	30 sec.	02
Suptavajrasana	30 sec.	02
Ardhamatsyendrasana	30 sec.	02
Vajrasana	30 sec.	02
Ustrasana	30 sec.	02
SetubadhasanaNoukasana	30 sec.	02

The dependent t-test was used to find out the significant difference between pre-test and post-test.

Findings and Results

The following tables illustrate the statistical result of the influence of yogasana programme on range of movement at selected joints among sedentary men.

TABLE NO.01
COMPARISON OF PRE AND POST TEST MEANS FOR
RANGE OF MOVEMENT
AT HIP JOINT

Tests	Mean	S.E.	MD	't' value
Pre test	50.93	0.57	2.13	3.74*
Post test	53.06			

*Significant at 0.05 level of significance $t_{(0.05)(14)} = 2.145$

Table no.01 shows pre and post test means for range of movement at hip joint are 50.93 and

53.06. The obtained 't' value 3.74 is greater than the tabulated 't' value 2.145 at 0.05 level of significance. Hence there is the significant difference between pre and posttests so it may be concluded that asana treatment increases the range of movement at hip joint.

TABLE NO.02
COMPARISON OF PRE AND POST TEST MEANS FOR
RANGE OF MOVEMENT AT KNEE JOINT

Tests	Mean	S.E.	MD	't' value
Pre test	98.93	0.267	1.00	3.75*
Post test	99.93			

*Significant at 0.05 level of significance $t_{(0.05)(14)} = 2.145$

Table no.02 shows pre and post test means for range of movement at knee joint are 98.93 and 99.93. The obtained 't' value 3.75 is greater than the tabulated 't' value 2.145 at 0.05 level of significance. Hence there is the significant difference between pre and post tests so it may be concluded that asana treatment increases the range of movement at knee joint.

TABLE NO.03
COMPARISON OF PRE AND POST TEST MEANS FOR
RANGE OF MOVEMENT AT ANKLE JOINT

Tests	Mean	S.D.	MD	't' value
Pre test	60.40	0.498	1.93	3.87*
Post test	62.33			

* Significant at 0.05 level of significance $t_{(0.05)(14)} = 2.145$

Table no.03 shows pre and post test means for range of movement at ankle joint are 60.40 and 62.33. The obtained 't' value 3.87 is greater than the tabulated 't' value 2.145 at 0.05 level of significance.

Hence there is the significant difference between pre and posttests so it may be concluded that asana treatment increases the range of movement at ankle joint.



The findings of indicates that the range of movement at all the three joints were increase. It may due to the stretching and holding nature of asana in the final position for a particular period of time by the subjects. And on the light of above findings the hypothesis that "There would be significant effect of asana on the range of movement at hip, knee and ankle joints." is accepted.

Conclusion

Within the limitations of present study, the following conclusion was drawn.
Yogic Asanas training programme are effective in improving range of movement of hip, knee and ankle joint.

References

- Schell F.J., Allolio B, Schonecke O.W. (1994). "Physiological and psychological effects of Hatha-Yoga exercise in healthy women". *Int J Psychosom*, 41(1-4):46-52.
- Mark D. Tran M.S, Robert G. Holly, Jake Lashbrook BS, Ezra A. Amsterdam MD (2007) "Effects of Hatha Yoga Practice on the Health-Related Aspects of International Journal of Multidisciplinary Educational Research ISSN: 2277-7881 Volume 1, Issue 4, Sept. 2012 51 Physical Fitness" *Preventive Cardiology*, 4 (4), p 165-170.
- Chen K M, Tseng W S. (2008) "Pilot-Testing the Effects of a Newly-Developed Silver Yoga Exercise Program for Female Seniors" *Journal of Nursing Research*, Vol 16(1): p37-46.
- Munoru Pauline and Elijah Gitonga Rintaugu (2010) "Effects of yoga training on bilateral strength and shoulder and hip range of motion" "International journal of current research".