Part I: Concept of Bhujangasana in Indian Scriptures
Part II: The Effects of Yoga Therapy on Low Back Pain in a non-residential set up
By

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Abstract

Part I: Concept of Bhujangasana in Indian Scriptures

Asana is a Samskrta word that literally means a pose or posture. In Pantanjali's yoga Sutras asana means, posture of body which is motionless and comfortable. In yogacudamani upanisad-109 version version says asanena rujam hanti mean the practice of asanas involves stretching and moving the body into various positions.with practice, the body can be made to remain in a specific position for a longer period of time, comfortably. According to patanjali's yoga Sutras Sthirasukhamasanam mean the posture should be steady and comfortable. In back ward bending asanas Bhujangasana is the important one. Bhujaga means a serpent. In this posture, lie flat on the floor, face downwards. Lift the body up from the trunk and bend the head back like a serpent about to strike. Gheranda Samhita defines Bhujangasana as

Angusthanbhiparyantam adho bhumau vinyaset I
Karatalabhyam dharma dhrrtve urdhvasirsah phaniva hi I I G.S.42 I I

From the big toe to the navel, lay the body on the ground. Holding the ground with the palms, lift the head just like a cobra.

This Yoga pose improves spinal flexibility and strengthens the muscles in the arms and back. In addition, it is effective in relieving menstrual irregularities and constipation. Learn how to perform the cobra Pose in this section.

Dehagnirvardhate nityam sarvarogavinasanam I
Jagarti bhujagi devi bhujagasanasadhanat I I G.S.2.43 I I

Gheranda Samhita further says that this Bhujangasana always increase the bodily heat and destroys all diseases. By the practice of this posture the serpent goddess (the kundaalini force) awakes.

Summary and conclusion

The practice of asanas involves stretching and moving the body into various positions. With practice, the body can be made to remain in a specific position for a longer period of time, comfortably.
Backward bending asana creates a negative pressure in the abdomen and pelvis, helping neuro-circulatory toning of all the related organs. They also massage the abdomen and pelvic organs by stretching the muscles in this area, especially the rectum abdominal. In the list of back ward bending asanas Bhujangasana comes. Bhujanga means a serpent. In this posture, lie flat on the floor, face downwards, lift the body up from the trunk and bend the head back like a serpent about to strike.
Graded practice based on the principle of simple to complex, which is also called principle of progression. It is based on sound neuro-muscular basic. Therefore, in a sequence of practice leading to Bhujangasana, Niralambasana comes first, then Bhujangasana and lastly sarpasana. Bhujangasana-I, Bhujangasana-II, Sarpasana-I, Sarpasana-II, Sarpasana-III, Sarpasana-IV and Saratasana these all are variations in Bhujangasana according to Encyclopaedia of Traditional Asanas.
This Yoga pose improves spinal flexibility and strengths the muscles in the arms and back. In addition, it is effective in relieving menstrual irregularities and constipation. Learn how to perform the Cobra pose in this section. This posture brings flexibility to the dorsal spine, strengthens the spinal muscles. Reduces the abdominal fat. Useful in management of bronchial problems and back problems. Gheranda Samhita further says that this Bhujangasana always increases the bodily heat and destroys all diseases. By the practice of this posture the serpent goddess (the kundalini force) awakes.

Part II: The Effects of Yoga Therapy on Low Back Pain in a non-residential set up

Background: Yoga, practised widely in the East, is now popular in the West as part of a healthy lifestyle. Low back pain is a very common problem of modern lifestyle.
Aims: The present study was conducted to assess the effect of Integrated Approach of Yoga Therapy (IAYT) for chronic low back pain (LBP), in a 10 day Yoga Therapy Camp (LBP) in a non-residential set up.
Methods and Material: Design of the study was self as control. A total of 34

(F-7, M-27) subjects in age ranged between 20-70 years, who participated in a yoga camp for ten days were recruited in a non-residential set up in Patna (Bihar). The therapy for the participants was given for 4 hours per day by well trained therapy instructors from SVYASA (Swami Vivekananda Yoga Anusandhana Samsthana), Bangalore. Measurements of this study were (1) Sit And Reach (SAR) and (2) Pain Visual Analog Scale (PVAS). Each participant was assessed on the 1st day and 9th day by using Sit And Reach (SAR) apparatus for spinal flexibility and Pain Visual Analogue Scale (PVAS) for intensity of pain.

Results: The data were analyzed by using SPSS version 10.0. There was significant improvement in the SAR and PVAS. There is no significant difference between the normal sit and reach scores on the 1st and 9th day but (Pre2-Post2) there is significant difference in the ability to bend forward. In PVAS there was significant reduction in pain after practices of yoga. Results showed improvement (SAR: Pre1- Post1= 0.471±2.351, Pre2-Post2 =-6.974±8.035 and PAS: Pre-5.368± 2.415, Post-3.474± 2.279) in both measures.

Conclusions: Based on these findings, it is concluded that integrated yoga program for LBP is effective for improving balance, flexibility of the spine and reducing Low Back Pain.

Results

In the 10 day of yoga therapy, the group has shown significant improvements in the two variables Sit And Reach (within the group, P-value 0.001) and Pain Visual Analogue Scale (within the group, P-value 0.001). It shows good improvement in spinal flexibility and reduction in intensity of pain. See Table1 & Table 2.

There is no significant difference between the normal reach (without bending forward) scores on the first day and the 10th day (P = 0.252).

There is a significant difference in the ability to bend forward (stretch forward):

The mean value on the fast day was -24.8 and on the last day was -4.6; this is shown in Table 1 and in Figure 4 (Sit And Reach for spinal flexibility). A paired Samples t-test for the data shows a highly significant difference (P<0.001). Pain Visual Analogue Scale also shows a significant (P<0.001)

reduction in pain after yoga, shown in the Table 2 and in Figure 5 (Pain Visual Analogue Scale for reduction in degree of pain).

The study indicates that the practice of IAYT help achieve significant improvements in low backpain subjects in a short period of time.

Discussion

In a 10 day program of yoga therapy, the yoga group shows significant improvements in the variables like Sit And Reach and Pain Visual Analogue Scale. This indicates ranked improvement in spinal flexibility and pain reduction.

Comparison with earlier studies

All other studies show reduction in spinal function disability, pain intensity and improvement in balance and flexibility by the practice of yoga in a non-residential set up. These outcome results were achieved after a minimum period of 6-weeks long yoga practice. Better results were shown with longer period of practice.

The present study was conducted on the effect of Integrated Approach of Yoga Therapy (IAYT) for ten days in a non-residential set up, where it showed statistically significant improvement in spinal function, mobility and reduction in pain intensity. Thus, this study shows that if participants receive intensive yoga therapy training program for their chronic low back pain in a residential yogic atmosphere and environment, there is a significant improvement in their condition even in a shorter period. . Results of this study was potentially important trends in the functional measurement scores showed improved balance and flexibility and decreased disability and depression for the yoga group28.

Hence the decrease in LBP due to IAYT practice in the present study is in line with the previous research of a decrease in LBP, functional disability and pain medication due to Iyengar yoga29, clinically significant change, restricted activity, general health status and medication use10.

There are several ways that yoga may bring relaxation, muscle strengthening and exercise to the muscles, calmingdown the mind etc. Pain and disability: physical exercise is effective in treating disability, and neuro-therapeutic intervention is effective in both pain and disability17. Physical and mental conditions8, will strengthen the rationale for a multidisciplinary treatment approach including direct mechanical tissue

stimulation, movement reduction, psycho-social intervention and pharmacological treatment to address this common and debilitating condition25. Improvement on medical and functional pain-related outcomes from Iyengar yoga therapy11, significant improvement, with near normal motility and absence of pain10. All these studies show reduction in spinal function disability, pain intensity and improvement in balance and flexibility by the practice of yoga. In conclusion it may be said that the practices of IAYT for low back is an effective method for reducing pain and improving flexibility in patients.

Summary and Conclusion

Yoga practices improved the flexibility and balance of the spine and decreased low back pain. Why do so many suffer from pain, specifically low back pain? This is a question that patients and doctors ask with varying degrees of frustration15. It is one of the most commonly reported reasons for use of Complementary and Alternative Medicine (CAM) 30. This study was an attempt to examine the effect of one week Yoga Therapy in patients with Low Back Pain (LBP) in a nonresidential set up.

A total of 34 (F-7, M-27) members age ranged between 20-70 years with mean and standard deviation of age 41.91 ± 16.38 years, who participated in a yoga camp for seven days in a nonresidential set up in Patna (Bihar) and after fulfillment of their inclusion and exclusion criteria. The design of the study was self as control. The therapy for the participants was given for two hours per day by well therapy instructors trained by SVYASA (Bangalore). Measurements of this study were (1) Sit And Reach (SAR) and (2) Pain Visual Analog Scale (PVAS). Each participant was assessed on the 1st and 7th day of the program by using sit and reach for spinal flexibility and pain visual analogue scale for intensity of pain. In the 10 days yoga therapy, group has shown significant improvements in the variables like Pain Visual Analogue Scale (with in the group P-value 0.001) and Sit And Reach (with in the group P-value 0.001). It shows good improvement in spinal flexibility and reduction in intensity of pain.

The study indicates that the IAYT help to achieve significant improvements in a short period of time.

Key words: sit and reach; pain visual analogue scale; yoga; low backpain.