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**A Study of Effects of Three Month Yogasanas Training Programme on Agility and Muscular Strength on College Judo Players**

**Abstract**

Yoga is a huge compilation of spiritual techniques and practices aimed at integrating mind, body and spirit to achieve a state of explanation or oneness with the cosmos. What is usually thought of as “yoga” in the West is really Hatha Yoga, one of the many paths of yoga. The different paths of yoga highlight different approaches and techniques, but eventually lead to the same goal of confederacy and explanation. Although yoga’s eventual aim is superior, its spirit is realistic and scientific as it emphasizes direct knowledge and visible results. It is not a faith, but a carry out of personal question and searching. As the educational and spiritual variety of practitioners show, yogic philosophy speaks to worldwide truths that can be included within any belief system.

**Introduction**

According to B.S. Oken, D. Zajdel, S. Kishiyama, K Flegal, C Dehen, M Haas, D.F. Kraemer, J. Lawrence, J. Leyva in his research (2006) There are potential benefits of mind-body techniques on cognitive function because the techniques involve an active attentional or mindfulness component, but this has not been fully explored. Objective: To determine the effect of yoga on cognitive function, fatigue, mood, and quality of life in seniors. Design: Randomized, controlled trial comparing yoga, exercise, and wait-list control groups. Participants: One hundred thirty-five generally healthy men and women aged 65-85 years. Intervention: Participants were randomized to 6 months of Hatha yoga class, walking exercise class, or wait-list control. Subjects assigned to classes also were asked to practice at home. Main Outcome Measures: Outcome assessments performed at baseline and after the 6-month period included a battery of cognitive measures focused on attention and alertness, the primary outcome measures being performance on the Stroop Test and a quantitative electroencephalogram (EEG) measure of alertness; SF-36 health-related quality of life; Profile of Mood States; Multi-Dimensional Fatigue Inventory; and physical measures related to the interventions. Results: One hundred thirty-five subjects were recruited and randomized. Seventeen subjects did not finish the 6- month intervention. There were no effects from either of the active interventions on any of the cognitive and

alertness outcome measures. The yoga intervention produced improvements in physical measures (eg, timed 1-legged standing, forward flexibility) as well as a number of quality-of-life measures related to sense of well-being and energy and fatigue compared to controls. There were no relative improvements of cognitive function among healthy seniors in the yoga or exercise group compared to the wait-list control group. Those in the yoga group showed significant improvement in quality-of-life and physical measures compared to exercise and wait-list control groups. Various research studies on yoga and fitness has been conducted to look at the health benefits of yoga - yoga postures (*asanas*), yoga breathing (*pranayama*) and meditation. These yoga practices might be interacting with various somatic and neuro-endocrine mechanisms bringing about therapeutic effects (Malhotra and Singh, 2002). The overall performance is known to be improved by practicing yoga techniques (Upadhyay *et al*, 2008) and their effects on physical functions were reported (Hadi 2007). Yoga practices can also be used as psycho-physiological stimuli to increase the secretion of melatonin which, in turn, might be responsible for perceived well-being (Harinath *et al*. 2004). Yoga may be as effective as or better than exercise at improving a variety of health-related outcome measures (Ross and Thomas; 2010) and as a result this study was undertaken to find out the effects

of 6-weeks yogasanas training on agility and muscular strength in sportsmen.

**Objectives of the Study**

- To find out the agility of Judo players
- To find out the Muscular Strength of Judo players
- To compared Muscular Strength and agility between college judo players as Experimental group and control group.

**Significance of the Study**

The study helps players & coaches of this region to recognize the talents and to understand the Muscular Strength and agility improved by Yogasana training programme of college judo players.

**Hypothesis**

- Muscular Strength and agility of the judo players can be improved by regular yogasana training programme.

**Sample**

30 male Judokas randomly selected from BNB College, Digras, Yavatmal aged 19-23 years. Their body height ranged from 160 to 165 cm and body mass from 56 to 65 kg. They were randomly assigned into two groups: A (experimental N=15) and B (control N=15). The subjects from Group A were subjected to a three month yogasanas training programme. This lasted for three month with consistent daily one hour training session after regular judo practice session was organised for continuous for week and Sunday is totally rest.

The Yogasana consisted of a variety of fifteen yogic asanas training programme for three month.

1. Siddhasana
2. Swastikasana
3. Pavanamuktasana
4. Vajrasana
5. Sarvangasana
6. Paschimottanasana
7. Bhujangasana
8. Salabhasana
9. Dhanurasana
10. Ardha-Matsyendrasana
11. Vakrasana
12. Chakrasana
13. Gomukhasana
14. Yoga Mudra
15. Shavasana

**Table A: Fifteen Yogasanas Training Programme for BNB College Judokas (Judo Players) of Digras for Three Month with Physical and Physiological Benefits and Posture of Yogasan**

S. No.	Name of Aasan	Benefits	Posture
1	Siddhasana	This asana helps threat diabetes and piles. It purifies and tones the coccyx and sacral nerves through increased blood supply to the pelvic region, relieves rheumatism of thighs, weakness of legs.	
2	Swastikasana	This asana purifies and tones the coccyx and sacral bones through increased blood supply to pelvic region. Relieves rheumatism of thighs, weakness of legs. It is therapeutic for those having varicose veins.	
3	Pavanamuktasana	Relieves acidity, constipation, dyspepsia, flatulence, and helps tone up muscles.	
4	Vajrasana	This pose cures dyspepsia, flatulence, and purifies and tones the coccyx and sacral bones through increased blood supply to pelvic region, relieves muscle pain of thighs, knees, legs, toes and sciatica. Tones up muscles and nerves of thighs and legs.	
5	Sarvangasana	Relieves muscular pain, rheumatism, nervousness, varicose veins, and cures insomnia, giddiness, loss of appetite, and indigestion. It purifies blood, strengthens nerves, and is a brain tonic. It keeps the spine supple.	

		<p>This asana also relieves complaints of eyes, ears, nose and salivary glands, diseases of the throat, including tonsils, thyroid and parathyroid glands.</p> <p>It cures constipation, piles and tones ovaries, uterus and displacement of uterus.</p>							
6	Paschimottasana	<p>It tones up hip muscles, strengthens back muscles, keeps the spine supple, and helps cure sciatica. It also relieves constipation, indigestion, and other abdominal disorders.</p>							
7	Bhujangasana	<p>It cures insomnia, tones up heart muscles, relieves cervical spondylitis, and tones up the reproductive system in women, and the back muscles. It keeps the spine supple.</p>							
8	Salabhasana	<p>It helps obese people. Alleviates insomnia, bronchitis, and tones up the liver, pancreas, kidneys and the abdominal muscles. It strengthens the thighs, hands and the legs. This asana relieves lumbago, rheumatism, arthritis, cervical spondylosis, back pain and menstrual problems.</p>							
9	Dhanurasana	<p>It relieves insomnia, and obesity, and makes one active.</p> <p>This asana strengthens the arms, legs, abdomen, back muscles and the spine. It is also therapeutic for osteoporosis.</p>							
10	Ardha-Matsyendrasana	<p>This asana stimulates the liver and kidneys. It relieves dyspepsia and constipation, and cures loss of appetite. It is therapeutic for muscular pain, backache and sciatica. It makes the spine supple.</p>							
11	Vakrasana	<p>Vakrasana confers the benefits of Ardha-Matsyendrasana on a moderate scale.</p>							
12	Chakrasana	<p>This asana provides the benefits of Bhujangasana, Salabhasana and Dhanurasana. It revitalizes and energizes the body, and keeps the spine supple. It exercises the abdominal muscles and improves digestion. It also improves the functioning of the liver.</p>							
13	Gomukhasana	<p>It cures insomnia, indigestion and piles. It also strengthens the legs, knees, and spine. It improves the circulation around the arms and armpits.</p>							
14	Yoga Mudra	<p>It tones up the abdominal muscles and minimizes abdominal disorders. It stimulates the liver, strengthens the back and keeps the spine supple. It is therapeutic for rheumatic pain and arthritis.</p>							
15	Shavasana	<p>This asana relaxes all the muscles and nerves. It gives rest to the body and mind. It relieves high blood pressure, and it's beneficial for pregnant women, ensuring easy child birth.</p>							

**Selection of Variables and Tests:**

The Subjects were tested on the following physical fitness variables.

**Variables of the Test:**

- Agility/By Shuttle Run Test
- Muscular Strength/By Sit-ups Test

**Method of Study**

The Sit-ups test was used to assess the muscular strength. The score of the test is the number of correctly executed sit-ups performed by the subjects in 60 seconds. Shuttle Run test was used to monitor the agility of the subjects. The time taken by the subjects between the audible signal 'start' and the finishing of the run was recorded to be the score. The time was recorded correct in seconds.

**Data Analysis**

**Table B: Mean, SD of Agility of Experimental and Control Groups**

Groups	Number	Mean	SD	t-value
Experimental	15	14.08	0.49	9.42
Experimental	15	13.32	0.52	
Control	15	13.90	0.37	0.71
Control	15	13.69	0.36	

Table-B shows that the mean of agility of pretest of experimental group and post test of experimental group was 14.08 and 13.32 respectively, whereas the mean of agility of pre test of control and post test of control group was 13.90 and 13.69. The "t" value in case of experimental group was 9.42 and for control group it was 0.71.

**Table C: Mean, SD of Muscular Strength of Experimental and Control Groups**

Group	Number	Mean	SD	t-value
Experimental	15	18.63	1.70	12.89
Experimental	15	22.85	1.46	
Control	15	21.03	1.87	0.49
Control	15	21.24	1.89	

Table-C shows that the mean of muscular strength of pre test of experimental group and post test of experimental group was 18.63 and 22.85 respectively, whereas the mean of muscular strength of pretest of control and post test of control group was 21.03 and 21.24. The "t" value in case of

Experimental group was 12.89 and for control group it was 0.49.

**Conclusion**

It is observed that significant increases in agility and muscle strength .Scientific studies on yoga demonstrate that yoga improves dexterity, strength and

musculoskeletal coordination of the practitioners. Postures assumed during yoga practice are mainly isometric exercises which provide optimally maintained stretch to the muscles. The three month of yogasanas training programme showed significant improvement in balance and agility. Yogasana training programme are known to improve one's overall performance and work capacity.

From the above study it is concluded that three month yoga asanas training had significant effect on balance and agility through a variety of effects. The data provide more evidence to support the valuable effect of yoga asana training on agility and muscular strength and thus, such training may be suggested to increase sports performance of Judokas (Judo players) of BNB.College Digras.

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