

“Effect Of Selected Supine And Prone Lying asanas On leg Strength Of Female Hockey Players”

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Abstract

Yoga is important Bringing harmony between the mind and body is the goal of a very subtle science that is grounded in spiritual discipline. Prone and Supine postures are doing while sleeping on the stomach and back. The position of all Prone and Supine postures is Makarasana, Naukasana, Salabhasanas, SaralBhujangasana, ArdhaDhanurasana, Savasana, Saralbhujangasana, Dhanurasana, ParsvaDhanurasana, Uttanapadasana, Vipareetakarani, Halasana, Matsyasana, Sarvangasana etc. The hockey players suffer from injuries which is associated with hockey like, hip and legs, & basically the majority of lower extremities. In this study the researcher aims to investigate the leg strength of the female hockey players through prone and supine lying asanas. To attain the present study 70 female Hockey Players were selected in which they were split into two groups: Control and Experimental, the experimental a group of trained with 12 weeks of prone and supine lying asanas and control group were on their usual practice. The researcher felt it worthwhile to conduct and see the results of its impact. The study resulted significant effect on leg strength of experimental group with 0.05 level of significance.

Keywords: Makarasana, Naukasana, Salabhasanas, Saral Bhujangasana, Ardha Dhanurasana, Savasana, Saral bhuj angasana, Dhanurasana, Parsva Dhanurasana, Uttanapa dasana, Vipareetakarani, Halasana, Matsyasana, Sarvangasana Prone, Lower extremities, Leg Strength

Introduction

Yoga is important Bringing harmony between the mind and body is the goal of a very subtle science that is grounded in spiritual discipline. For healthy living, there are both art and science. The Sanskrit root word "yuj," which meaning "to join," "yoke," or "unite," is where the term "yoga" comes from. (Niranjana nanda Saraswati, 2002).

Asana is a Sanskrit word meaning “a special way of sitting or standing while practising yoga.” Traditionally, an asana is described as a “seat”. It is most frequently the seated position that is employed for meditation. The phrase is now more frequently used in yoga to refer to any Hatha yoga physical pose. Following the yamas and niyamas, it is the third limb in Patanjali's eight-fold ashtanga path. Originally a seated position for meditation, asana is a body posture. Later, reclining, standing, inverted, twisting, and balancing poses were added to the meditation seats in Hatha and modern yoga. The Patanjali Yoga Sutras from the fifth century BC defines “asana” as “to be seated in a position that is steady but relaxed.” Asanas are also known as yoga poses or yoga postures in English. Patanjali describes the capacity to sit for prolonged durations as one of the eight limbs of his system. (Niranjan ananda Saraswati, 2002)

The more persistent intermediate and advanced students who insist on carrying on with their practises, the more they experience this wonderful, 5000+ year-old way of life. For the body, mind, and spirit, practise yoga. You learn how to stretch, unwind, and energise yourself using your body, breath, and mind. (Dr. Brij Goal Bhushan, 2017)

Prone asana: Prone postures is doing while sleeping on the stomach. The position of all Prone postures are makarasana, naviasana, salabhasanas which means crocodile posture.

Supine asana: Supine postures are great for all yogis. Supine postures are done lying flat on our back with face up. There are various postures which can be practice in supine position which can be include in your yoga practice and their own yoga session.

While the majority of postures are not aerobic in nature, they do stretch and exercise various muscle groups over an extended period of time while sending oxygen to the body's cells. Yoga may help you improve and complement your skills in any sport you choose to play. Most sports increase muscular strength and endurance, frequently in particular body parts. Your body and mind will be able to perform more effectively thanks to yoga, which can assist to correct any imbalances in muscle development. One will be less likely to sustain injuries if their body is flexible and supple since their joints will be maintained lubricated. Many sports require both strong balance and mental focus. Yoga asanas help to tone your muscles, reduce physical strain, and sharpen your focus and composure. The limbs become balanced, powerful, and relaxed through yoga. **(BKS Iyengar ,2015).**

In today's world, being physically healthy is essential for any good performance. Varying activities call for varying levels of fitness, each one emphasising a distinct fitness component. The essential bodily organs that support health are the focus of yogic methods. Yoga strives to achieve the proper functioning of the body's important organs, which is the foundation of physical fitness. A great routine to maintain the health of the body's critical organs includes practising attention, controlled breathing, relaxation techniques, and a variety of chosen prone and supine asanas that give the spine distinct movements. No matter how we define sport—in a narrow sense or a broad sense—yoga can help to promote sports. Yoga will help the body perform more effectively and also assist to correct any imbalances in muscle development. Because the joints will be maintained lubricated, a flexible and supple body will be less prone to sports injuries. **(Gwen Lawrence,2018)**

Hockey is a competitive sport and the players and the teams taking rigorous training for achieving medal winning performance. Because of that rigorous training the hockey players suffer from injuries which is associated with hockey like lower extremities, leg, & basically the large lower muscles. Strengthening of leg muscles could be helpful for minimizing the chances of injuries. The leg muscles also could be strengthened through yogic asanas. Different research studies shown that the prone and supine asanas and some other back extension asanas increase leg strength. Researches have done on different subjects with positive results. In this study the researcher aims to investigate the leg strength of the female hockey players through prone and supine lying asanas. The researcher felt it worthwhile to conduct and see the results of its impact.

Methods

To assist this study 70 state level female hockey players from national hockey stadium certain subjects aged ranging from 13-18 years by mean and SD. The subjects were divided into two groups by random selection, 35 each, of which organisation functioned as the Yogic Asana group or Experimental additionally, the second group acted as the control group. The requests Prior to administering the study and to avoid any misunderstanding regarding the split necessary on their division, the experimental measurements, testing, and asana regimen were explained to them. The researcher obtained each subject's unique authority.

On the basis of different literature findings of the allied research studies and accessibility of instruments, experts' view and researcher's own concern The following factors were chosen for the study's purpose:

Dependent variable:

- Leg strength

To determine the leg strength of the selected Female state level hockey players following methods and tools were used.

Equipment: Dynamometer (leg strength was measured with the help of leg Dynamometer)

Test administration: This test is to measures leg strength of athletes. Before you begin, make sure the dial has been reset to zero. The subject was asked to stood erect position on the dynamometer platform putting your feet apart. With hands pointing down, the bar was held in the middle of the level where the thigh and trunk meet. The knees were bent just a bit. The individual was instructed to raise the dynamometer's bar so that, at the top of the lift, his knees were almost straight. Three trials were allowed for each Subject.

Scoring: The subjects were tested 3 times. Best of three trials were taken. The scoring was recorded in kilograms.

The tests were administered on the subjects of female state level hockey players. The assessments were evaluated at the yoga training with prone and supine lying asanas for 12 weeks. Leg strength was evaluated in the individuals prior to training (pre-test), then the subjects were tested once more on the chosen variable 12 weeks afterwards.

Training Protocol:

For the point of the study training of Prone and supine asana were neither the control group nor the experimental group received any instruction. They perform as passive control group. The training protocol (prone and supine asana) of 12 weeks was programmed below:

The training protocol included these following prone and supine lying asanas:

Warm up exercises		
MAIN PRACTICE	ROUNDS	TIME
OPENING PRAYER	1	2 min.
Hands Stretch breathing technique	1	1 min.
Side twisting	20(10 Right side and 10 Left Side)	2 min.
Shoulder stretch technique	20(10 Clockwise and 10 Anticlockwise)	2 min.
Knee rotation	20(10 clockwise and 10 anticlockwise)	2 min.
Jogging	2	2 min.
Surya Namaskar	5	5 min.
Sthlitasana	1	2 min.
TOTAL		18 MIN.

Prone line Asana		
Saralbhujangasana	2	2 min.
bhujangasana	2	2 min.
Ardha dhanurasana	2	2 min.
dhanurasana	2	2 min.
VipareetNaukasana	2	2 min.
Ardha Shalabhasana	2	2 min.
Relaxation in Makarasana	1	1 min.
TOTAL		13 MIN.

Supine line Asana		
Setu bandhasana	2	2 min.
naukasana	2	2 min.
Uttanapadasana	2	2 min.
Vipareetakarani	2	2 min.
Sarvangasana	2	2 min.
Halasana	2	2 min.
Closing prayer	1	2 min.
TOTAL		14 MIN.

Statistical Analysis:For the present study, as we have two different groups and, in both cases, we have to check the pre and post data, so, we conducted paired t-test to determine whether there is a significant

difference between the two groups with relation to the control group and before and after the 12-week training period.

Results

Table 1 shows the descriptive statistics (Mean and SD) for the variables relating to leg strength.

Variables	Control Group		Experimental Group	
	Mean	Standard Deviation	Mean	Standard Deviation
Pre-Leg Strength	55.91	2.44	56.65	2.31
Post-Leg Strength	55.62	1.97	57.15	1.59

Table 1. Shows the descriptive statistics with mean and SD of Leg strength experimental and control group.

Table 1 Dependent sample t-test of Leg Strength between the Hockey Players' Control and Main Group

Variables	Control Group		Main Group	
	t- Value	p-Value	t- Value	p-Value
Leg Strength	1.131	0.266	2.150	0.039

Prior to and following 12 weeks of training, Table 2 displayed the inferential statistics (dependent t-test) for the Control Group and experimental Group.

Discussion

In the table 2 the paired t-test table has shown significant effect in leg strength as the obtained p-value was 0.039 which has a significance level below 0.05 that means the training have significant effect on Again, there was no discernible difference between the control group and the experimental group. The following reasons might be attributed to the results. The female hockey players are elite athlete. They have undergone different tough training protocol. The players might have faced low adaptation in their leg strength due to the lack of recovery and other training overload. So, the twelve weeks yoga training have given improvement in their leg strength to those in the experimental group.

Moreover, the improved leg strength in the athlete might increase more significantly with the longer practice. This twelve-week effect has resulted sufficient to improve in their leg strength.

On the other hand, the significant effect might be the result of regularity of the training. Due to their positive approach with the training protocol along with professional practice and training has given regularly.

So, at the end we can say that twelve weeks yogic intervention played an effective role in the improvement of leg strength of female hockey players. The asanas are used in this intervention were effective on these subjects.

Conclusion

Prone and Supine Asana improves leg strength. The core health related physical fitness variable is the leg strength of every sports person. Hence, Prone and Supine lying Asanas shall act as a major training factor for a every competitor with view to its multi-faceted benefits.

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