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## Impact of Surya Namaskar Practices on Selected Motor Fitness Components among College Women Kho-Kho Players

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### ABSTRACT

The purpose of the study was to investigate the impact of Surya Namaskar practices on selected motor fitness components among college women kho-kho players. It was hypothesized that there was a significant difference on selected motor fitness components due to the effect of Surya Namaskar practices among college women kho-kho players. For the present study the 30 women kho-kho players from inter collegiate kho-kho players in Bharathiar University, Coimbatore, Tamil Nadu, India, were selected as random and their age ranged from 18 to 25 years. For the current study pretest and posttest used in random group design, which consists of experimental group and control group. The subjects at random assigned to two equal groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent Surya Namaskar practices and Group 'B' have not undergone any training. The variables like Leg Explosive Power and Shoulder Strength were assessed by standing broad jump and pull ups respectively. The data were collected before and after six weeks of training. The data were examined by applying Analysis of Co-Variance (ANCOVA). The 0.05 level of significance was set. The experimental group showed better improvement on Leg Explosive Power and Shoulder Strength among college women kho-kho players than the control group.

**Key words:** Kho-Kho, Surya Namaskar Practices, Motor Fitness Components, Leg Explosive Power, Shoulder Strength.

### INTRODUCTION

Sports and Physical Education increase the scope of human abilities, fitness and enrich the life of the individual and that of the society as a whole. Sports and physical activities are an crucial part of the human resource progress. The primary aim of Sports and Physical Education is not simply to develop star athlete, winning team or expert performances, but a natural vitality with character values and physical fitness. Sports have currently become a fundamental part of life. Sports is a vital element of Physical Education and are worldwide observable fact today.

**KHO-KHO**

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The Kho-Kho game is, at present, becoming the most popular amongst the indigenous activities in India. The game was originated in India and has considerably long old tradition. Kho-Kho game is played mainly in rural and urban areas.

Kho-Kho game is an important place in India. Since Ancient times because of several reasons, Sports of many kinds are being played in our Country since a long time. The game is controlled sprinting, fainting, and Dodging made the game exciting and interesting to notice. Some sports are played for the our physical development. Kho-kho game gives to the players the real enjoyment of the performance and to those who watch it, the satisfaction and thrill of having joyful sports. The word of Maharashtrian Kho-Kho is which means 'go and chase'. It is easy to organize and simple in form as it requires a small area of land.

**YOGA (SURYA NAMASKAR)**

Patanjali – .‘Checking the impulses of mind is Yoga’.

The word Yoga from the Sanskrit root “yug” which means “to unite” or “union” or “to combine” or “to join” development of the qualities of an individual being physical, mental, moral, intellectual and spiritual. Yoga could be a science by the individual approaches the reality of illness and age.

Asanas are an integral part of Yoga. Yoga uses the body to exercise and controls the mind so that at a later period the body and the mind together may blend with the body and soul. The yoga asanas influence and penetrate each single cell and tissues design them come back to life.

Surya Namaskar is one of the most important asanas or pre asanas in traditional yogic method. The ultimate asana for strengthening the bone and all muscles of the body. Surya Namaskar yoga has several benefits: it is a complete workout for the entire physical structure that can be done without any equipment. Surya Namaskar practice improves Muscle strength, Bone Strength Confidence, Creativity, Leadership, Decision-Making Ability, and Intuition. Although there is no set time of day when Surya Namaskar yogic method should be performed, it is generally done at morning. It has the potential to bring about much-needed improvements in our mind and body, as well as other important parts of our life.

**METHODOLOGY**

The purpose of the study was to investigate the impact of Surya Namaskar practices on selected motor fitness components among college women kho-kho players. It was hypothesized that there was a significant difference on selected motor fitness components due to the effect of Surya Namaskar practices among college women kho-kho players. For the present study the 30 women kho-kho players from inter collegiate kho-kho players in Bharathiar University, Coimbatore, Tamil Nadu, India, were selected as random and their age ranged from 18 to 25 years. For the current study pretest and posttest used in random group design, which consists of experimental group and control group. The subjects at random assigned to two equal groups of fifteen each and named as Group ‘A’ and Group ‘B’. Group ‘A’ underwent Surya Namaskar practices and Group ‘B’ have not undergone any training. The variables like Leg Explosive Power and Shoulder Strength were assessed by standing broad jump and pull ups respectively. The data were collected before and after six weeks of training. The data were examined by applying Analysis of Co-Variance (ANCOVA). The 0.05 level of significance was set. The experimental group showed better improvement on Leg Explosive Power and Shoulder Strength among college women kho-kho players than the control group.

**Table: 1**

**Analysis of Co-variance for the Pre, Post and Adjusted Post Test Mean Values for Surya Namaskar Practices Group and Control Group on Leg Explosive Power**

Test	Surya Namaskar Group	Control Group	Source of Variance	Sum of square	df	Mean Square	'F' ratio	Table Value
Pre-Test Mean	1.58	1.55	Between	0.05	1	0.005	0.74	4.20
			With in	0.227	28	0.007		
Post Test Mean	1.76	1.58	Between	0.233	1	0.233	16.99 *	4.20
			With in	0.385	28	0.013		
Adjusted Post Test Mean	1.74	1.60	Between	0.145	1	0.145	97.06 *	4.21
			With in	0.040	27	0.002		

\*Significant at 0.05 level of confidence.

**Table:1** shows that the pre-test mean values on leg explosive power of Surya Namaskar practices group and control group are 1.58 and 1.55 respectively. The obtained 'F' ratio 0.74 for pre-test mean was less than the table value 4.20 for df 1 and 28 required for significance at 0.05 level of confidence on leg explosive power. The post-test mean values on leg explosive power of Surya Namaskar practices group and control group are 1.76 and 1.58 respectively. The obtained 'F' ratio 16.99 for post-test mean was greater than the table value 4.20 for df 1 and 28 required for significance at 0.05 level of confidence on leg explosive power. The adjusted post-test means of Surya Namaskar practices group and control group are 1.74 and 1.60 respectively. The obtained 'F' ratio 97.06 for adjusted post-test mean was greater than the table value 4.21 for df 1 and 27 required for significance at 0.05 level of confidence on leg explosive power. The adjusted post mean values of Surya Namaskar practices group and control group on leg explosive power are graphically represented in the Figure I.

**Figure: 1 Bar Diagram Showing the Pre, Post and Adjusted Mean for Surya Namaskar Practices Group and Control Group on Leg Explosive Power**

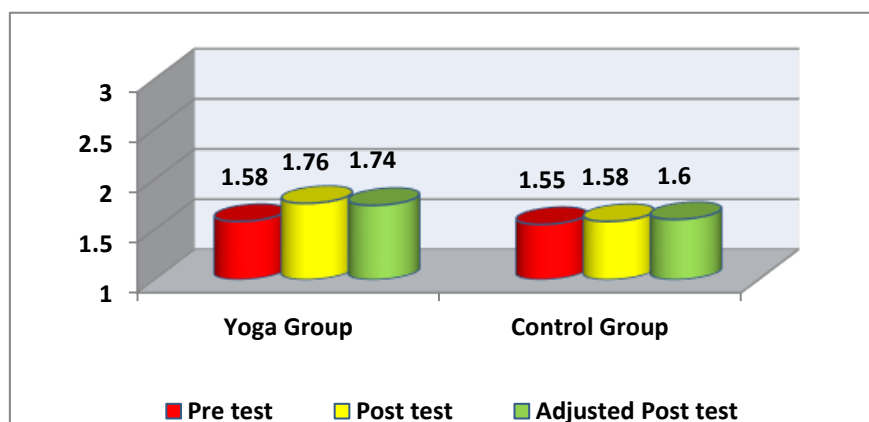


Table: 2

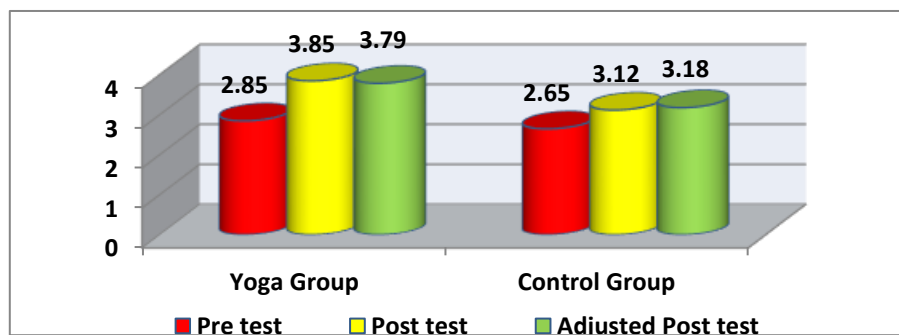
Analysis of Co-variance for the Pre, Post and Adjusted Post Test Mean Values for Surya Namaskar Practices Group and Control Group on Shoulder Strength 3

Test	Surya Namaskar Group	Control Group	Source of Variance	Sum of square	df	Mean Square	'F' ratio	Table Value
Pre-Test Mean	2.85	2.65	Between	0.299	1	0.122	0.63	4.20
			With in	13.056	28	0.356		
Post Test Mean	3.85	3.12	Between	4.022	1	4.022	15.01 *	4.20
			With in	7.356	28	0.256		
Adjusted Post Test Mean	3.79	3.18	Between	2.570	1	2.570	34.89 *	4.21
			With in	2.056	27	0.067		

\*Significant at 0.05 level of confidence.

Table: 2 shows that the pre-test mean values on shoulder strength of Surya Namaskar practices group and control group are 2.85 and 2.65 respectively. The obtained 'F' ratio 0.63 for pre-test mean was less than the table value 4.20 for df 1 and 28 required for significance at 0.05 level of confidence on shoulder strength. The post-test mean values on shoulder strength of Surya Namaskar practices group and control group are 3.85 and 3.12 respectively. The obtained 'F' ratio 15.01 for post-test mean was greater than the table value 4.20 for df 1 and 28 required for significance at 0.05 level of confidence on shoulder strength. "The adjusted post-test means of control and Surya Namaskar practice groups are 3.18 and 3.79". The obtained 'F' ratio 34.89 for adjusted post-test mean was greater than the table value 4.21 for df 1 and 27 required for significance at 0.05 level of confidence on shoulder strength. The adjusted post mean values of Surya Namaskar practices group and control group on shoulder strength are graphically represented in the Figure II.

Figure: 2 Bar Diagram Showing the Pre, Post and Adjusted Post Mean Values for Surya Namaskar Practices Group and Control Group on Shoulder Strength



DISCUSSION AND FINDINGS

In case of Motor Fitness Components i.e. Leg Explosive Power and Shoulder Strength is the results between pre and post (6 week) test has been found significantly higher in Surya Namaskar practices group in comparison to control group. The findings of the present study strongly indicates that Surya Namaskar practices of six weeks have significant effect on selected motor fitness components i.e., Leg Explosive Power and Shoulder Strength of college women kho-kho players. Hence the hypothesis as earlier said about Surya Namaskar practices programme has a significant effect on selected motor fitness components. In highlight of the same, the hypothesis was accepted.

## CONCLUSIONS

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**Based on the scientific analysis of the data, the following conclusions were drawn in this study:**

The study shows that, due to the Surya Namaskar practices programme, there is a significant effectiveness and improvement in selected motor fitness components like leg explosive power & shoulder strength among college women Kho-Kho players. Hence, it is concluded that Surya Namaskar practices programme not only helps to maintain good health but also helps to develop the performance in sports.

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**Surya Namaskar: Its Techniques and Health Benefits** Anurag Sachan\* and Geeta Assistant Prof., Department of Physical Education, Chaudhary Bansi Lal University, Bhiwani, Haryana, India. Indian Journal of Natural Sciences www.tnsroindia.org.in ©IJONS Vol.12 / Issue 67 / August / 2021, International Bimonthly (Print), ISSN: 0976 – 0997 32393.