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# Suryanamaskar Program on Core Fitness of Inter-School Kickboxing Players

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Abstract - The purpose of this study was to examine the "Suryanamaskar program on core fitness of interschool kickboxing players". Experimental design was used for this study to check the hypothesis; this research was based on pre-test & post- test non equivalent groups design. The present research whole sample a total number of 24 boys inter-school kickboxing players those represent the Ahmednagar district to State & National level were selected who had failed into three to six test items on the basis of purposively method of sampling technique from kickboxing district sports association and clubs of Ahmednagar. The study was selected the variables of core strength & Kraus-Weber's minimum muscular fitness test consist of six items which indicate the level of muscular strength and flexibility of key muscle group. The researcher gathered the subjects and given to them instruction about the importance about study and explain Suryanamaskar program & Kraus - Weber tests. The implemented pre-test by Kraus -Weber minimum muscular fitness tests and six weeks Suryanamaskar program which was given five days in a week was manipulated only on experimental group not control group. After Suryanamaskar program both group's i.e, experimental and control groups, were post tested for data collection. The researcher concluded that six weeks Suryanamaskar program was significantly effective on core fitness improved of inter-school kickboxing players which indicate the level of muscular strength and flexibility of key-muscle groups and also the findings of this study may be helpful to the inter-school kickboxing players to doing regular practice of Suryanamaskar to improve their health and fitness.

Keywords - Suryanamaskar Program, Core fitness & Inter-School Kickboxing Players.

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# INTRODUCTION

Suryanamaskar is a form of sun worship and can trace its origin back to the Vedas. But the literal meaning of Suryanamaskar is 'Salutation to the Sun'. Suryanamaskar consist of twelve different postures and is done along with chanting of mantras in every posture. Suryanamaskar is traditionally performed on empty stomach at sunrise which is considered the most spirituality favorable time and facing the rising Sun (Saraswati 1983).

# Benefits of Suryanamaskar

- Stimulates the nervous system
- Help in stretching, flexing & toning the muscles
- Strengthene the immune system
- Improve overall health, strengthene the body & relaxes the mind.

Kraus - Weber tests for muscular fitness are not designed to determine optimum level of muscular fitness but rather to determine whether or not the individual has sufficient strength and flexibility in the part of the body upon which demands are made to normal daily living. Lot of awareness is seen among

the people of our country regarding the level of physical fitness.

# **MATERIAL AND METHOD**

# Method of the study

The present study was an experimental research which was conducted with a purpose to examine the Suryanamaskar program on core fitness of interschool kickboxing players such as muscular strength and flexibility.

# Research Design

As mentioned in selection of subjects. All the subjects were divided into two groups randomly i.e. one experimental group and one control group. Experimental design was used for this study to check the hypothesis; this research was based on pre-test & post- test non equivalent groups design.

# **Method of Sampling**

The present research whole sample a total number of 24 boys inter-school kickboxing players those represent the Ahmednagar district to State &

National level were selected who had failed into three to six test items on the basis of purposively method of sampling technique from kickboxing district sports association and clubs of Ahmednagar.

#### Selection of Variable

The study was selected the variables of core strength & Kraus-Weber's minimum muscular fitness test consist of six items which indicate the level of muscular strength and flexibility of key muscle group.

# Procedure of the study

The researcher gathered the subjects and given to them instruction about the importance about study and explain Suryanamaskar program & Kraus - Weber tests. Total numbers of 24 inter-school boys kickboxing players mean of age (16.17±2.10) were selected as sample by using purposively sampling technique from kickboxing district sports association and clubs of Ahmednagar, (n=24) they were equally divided into, experimental group (n=12) and Control group (n=12). The implemented pre-test by Kraus - Weber minimum muscular fitness tests and six weeks Suryanamaskar program which was given five days in a week was manipulated only on experimental group not control group. After Suryanamaskar program both group's i.e, experimental and control groups, were post tested for data collection.

Table 1: Suryanamaskar program

	Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
1 <sup>st</sup> Week	Repetitions	14	14	14	14	14	14	Rest
	Total time	30 min.						
	Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
2 <sup>nd</sup> Week	Repetitions	16	16	16	16	16	16	Rest
	Total time	30 min.						
3rd	Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
Week	Repetitions	18	18	18	18	18	18	Rest
	Total time	30 min.						
	Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
4 <sup>th</sup>	Repetitions	20	20	20	20	20	20	Rest
Week	Total time	30 min.						
	Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
5 <sup>th</sup> Week	Repetitions	21	21	21	21	21	21	Rest
	Total time	30 min.						
	Day	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.	Sun.
6 <sup>th</sup> Week	Repetitions	21	21	21	21	21	21	
···	repeations							Rest

Suryanamaskar Program: Step 1 Pranamasana (Prayer pose), Step 2 Hastauttanasana (Raised arms pose), Step 3 Hastapadasana (Standing forward bend), Step 4 Ashwa Sanchalanasana (Equestrian pose), Step 5 Dandasana (Stick pose), Step 6. Ashtanga Namaskara (Salute with eight parts or points), Step 7 Bhujangasana (Cobra pose), Step

8 Adho Mukha Svanasana (Downward facing dog pose), Step 9 Ashwa Sanchalanasana (Equestrian pose), Step 10 Hastapadasana (Standing forward bend), Step 11 Hastauttanasana (Raised arms pose) and Step 12 Tadasana (Mountain pose)

# **Statistical Tools**

After data collection, data of pre-test and post-test of both the groups i.e, experimental and control group, compared by independent sample t-test and interpretation were drawn. The level of significance was kept at 0.05 to test the hypothesis.

#### **RESULTS OF THE STUDY**

The obtained results are present in the following table which represents the results of descriptive analysis and independent sample t-test to compare the mean of group's i.e, experimental and control groups.

Table 2: Statistical Analysis of Independent sample t-test

Test	Group	Mean	ʻt' value	Sig. (2-tailed)
Strength of Abdominal Plus Psoas Muscles Test	Exp	6.33	4.52	0.00
	Con	2.33		
Strength of Abdominal Minus Psoas Muscles Test	Exp	5.33	3.93	0.00
	Con	1.67		
Strength of Psoas and Lower Abdominal Muscles Test	Exp	6.00	4.50	0.00
	Con	2.33		
Strength of Upper Back Muscles Test	Exp	7.23	4.84	0.00
	Con	1.66		
Strength of Lower Back Muscles test	Exp	7.67	7.34	0.00
	Con	2.33		
Floor Touch Test	Exp	8.33	8.25	0.00
	Con	2.64		

Table no. 2 shows the mean of gain in experimental and control group were compared with independent t-test. The calculated 't' value of subjects in Test 1 Abdominal and Psoas muscles, Test 2 Abdominal muscles without Psoas, Test 3 strength of Psoas and Lower Abdominal muscles, Test 4 strength of the Upper Back muscles, Test 5 strength of the Lower Back muscle and Test 6 strength of Back and Hamstring muscles was 4.52, 3.93, 4.50, 4.84, 7.34 and 8.25 respectively. To determine the effect of Suryanamaskar program on core fitness of interschool kickboxing players, independent sample t-test was used at 0.05 levels of significance in relation to pre and post-test of Kraus-Weber's minimum muscular fitness tests.

# **DISCUSSION OF FINDINGS**

Discussion on the results of Kraus-Weber minimum muscular fitness test consists of six items which indicate the level of muscular strength and flexibility of key- muscle groups are given as; It was observed from the finding that the effect of Suryanamaskar program on improving core fitness of inter-school kickboxing players from table no. 2 shows that there was a significant difference between experimental group and control group of subjects regarding to the krausweber's test items. This indicates that Suryanamaskar program had positive effect on core fitness of experimental group. Therefore the set hypothesis that there was significant effect of the Suryanamaskar program on improving core fitness of inter-school kickboxing players was accepted. This finding was supported by Singh, K., et al (2010) studied the effect of Suryanamaskar on muscular endurance and flexibility among inter college student the results shows that muscular endurance and flexibility was significantly improved in group A compared with the control one, and it was also concluded that Suryanamaskar may be recommended to improve muscular endurance and flexibility.

# CONCLUSION

On the basis of the result obtained in the study the researcher made the concluded that six weeks Suryanamaskar program was significantly effective on core fitness improved of inter-school kickboxing players which indicate the level of muscular strength and flexibility of key-muscle groups and also the findings of this study may be helpful to the inter-school kickboxing players to doing regular practice of Suryanamaskar to improve their health and fitness.

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