

# INFLUENCE OF SURYA NAMASKAR PRACTICES ON BACK STRENGTH AMONG MALE COLLEGE STUDENTS

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## Abstract

The purpose of the study was find out the Influence of Surya namaskar practices on back strength among male college students. To achieve the purpose of this study, 20 male inter collegiate male college studentss were randomly selected as subjects from the Mother Teresa College of Physical Education, Pudukkottai, Tamilnadu, India. Their age ranged from 18 to 26 years. The selected participants were randomly divided into two groups such as group 'A' Surya namaskar practices (n=10) and group 'B' acted as control group (n=10). Group 'A' underwent Surya namaskar practices for five days per week and each session lasted for an hour for six week. Control group was not exposed to any specific training but they were participated in regular activities. The "isometric back strength" (in seconds) was used to measure back strength were selected as variables. The pre and post tests data were collected on selected criterion variables prior and immediately after the training program. The pre and post-test scores were statistically examined by the dependent 't' test and Analysis of co-variance (ANCOVA). The level of significant was fixed at 0.05 level. It was concluded that the Surya namaskar practices group had shown significantly improved in back strength. However the control group had not shown any significant improvement on back strength.

**Key words:** Surya namaskar, back strength, Hockey

## 1. Introduction

The word yoga means 'union': union of mind, body and spirit - the union between us and the intelligent cosmic spirit of creation- 'the oneness of all things'.

Suryanamaskar – The salutation to the God Sun is also a part of Indian traditional yogic practices. Each cycle of suryanamaskar is a sequence of certain 'asanas', performed along with 'pranayama'. **Bhavanani (2011)**.The sequence of asanas is such that each asana is complimentary to the next. During Suryanamaskar, muscles of the entire body experience stretch and pressure alternately and therefore it is said to give more benefits with less expenditure of time **.Bhutkar et al., (2008)**. It is claimed that suryanamaskar practice gives benefits of both asana and pranayama and improves general health and fitness. **(Borker, and Pednekar 2003)**.

India has a rich tradition of yogic practices. Now-a-days yoga, the ancient practice of postures, breathing and meditation is gaining a lot of attention from healthcare professionals. With increasing scientific research in yoga, its therapeutic aspects are also being explored. Suryanamaskar – The salutation to the God Sun is also a part of Indian traditional yogic practices **(Pratima et al., 2008)**.

Suryanamaskar is the one of the best exercise in yogic practices. It is having mainly 12 exercises, each one having different positions and they are impacted on the human body. It is making the human life as socially acceptable, mentally relax, physically fit, emotionally balance, and spiritually awakening. S N word is binded from two words one is Surya and other one is Namaskar, it means Surya is form of fire and Namaskar is form of respect. When we are going to do these Asana man be able to live the life as courageously like fire and hearty like vinaya.

Surya Namaskar is having their own history. S N it means "salutation to sun" can be seen as a form of worship the sun. Historically it is widely believed in the state of Maharashtra that Shivaji Maharaja, Sage Samarth Ramdas and the Marathas have performed Sūryanamaskāra as a physical exercise to develop able bodies. This may be related to vyayama ("physical exercise" in Sanskrit) being traditionally influenced by spirituality **(Nandar, S., & Urs, S. R. 2014)**.

## 2. Purpose of the Study

The purpose of the study was to find the influence of surya namaskar practices on back strength among male college students.

## 3. Methodology

To achieve the purpose of this study, 20 male college students were randomly selected as subjects from the Mother Teresa College of Physical Education, Pudukkottai, Tamilnadu, India. Their age ranged from 18 to 26 years. The selected participants were randomly divided into two groups such as group 'A' 'Surya namaskar practices' (n=10) and group 'B' acted as control group (n=10). Group 'A' underwent Surya namaskar practices for five days per week and each session lasted for an hour for six week. However, control group was not exposed to any specific training but they participated in their regular schedule. The "isometric back strength" (in seconds) were selected as criterion variables. The pre and post tests data were collected on selected criterion variables prior and immediately after the training program. The pre and post-test selected criterion variable scores were statistically examined by the dependent 't' test and Analysis of Covariance (ANCOVA). The level of significance was fixed at .05 level of confidence, which was considered as appropriate.

## 4. Analysis of Data

**TABLE-1**  
MEANS AND DEPENDENT 'T' TEST FOR THE PRE AND POST TESTS ON BACK STRENGTH OF  
EXPERIMENTAL AND CONTROL GROUPS (In Kg)

Criterion variables	Test	Experimental Group Mean	Control Group Mean
Isometric back strength test (in seconds)	Pre test	84.21	83.47
	Post test	93.24	85.64
	't' test	12.02*	1.09

\*Significant at .05 level. (Table value required for significance at .05 level for 't'-test with df 9 is 2.26)

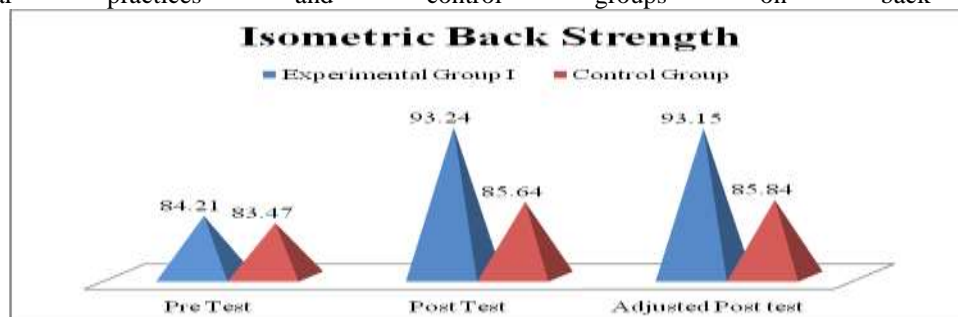
The table-1 shows that the pre-test mean value of experimental and control groups on back strength are 84.21 and 83.47 respectively and the post test means are 93.24 and 85.64 respectively. The obtained dependent t-ratio values between the pre and post test means of Surya namaskar practices and control groups are 12.02 and 1.09 respectively. The table value required for significant difference with df 9 at 0.05 level is 2.26. From the above table the dependent 't'-test value of back strength between pre and post tests means of experimental group was greater than the table value 2.26 with df 9 at .05 level of confidence, it was concluded that the experimental group had significant improvement in the back strength when compared to control group.

**TABLE-2**  
COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE BACK STRENGTH OF  
EXPERIMENTAL AND CONTROL GROUPS

	Experimental Group	Control Group	Source of Variance	Sum of Squares	Df	Mean Square	F
Isometric back strength test (Adjusted Post Mean)	93.15	85.84	BG	314.20	1	314.20	38.27*
			WG	139.57	17	8.21	

\* Significant at 0.05 level. Table value for df 1, 17 was 4.45

Table-2 shows that the adjusted post test means values on back strength of experimental and control groups 93.15 & 85.84 respectively. The obtained f- ratio of 38.27 for adjusted post test mean is greater than the table value 4.45 with df 1 and 17 required for significance at 0.05 level of confidence. The results of the study indicated that there was a significant mean difference exist between the adjusted post test means of Surya namaskar practices and control groups on back strength.



**Figure-1:** Pre, post and adjusted post tests mean values of experimental and control groups on back strength.

## 5. Discussion on findings

The present studies were found statistically significant improvement on back strength, which showed that positive Influence of Surya namaskar practices among male college studentss. The findings of the study were also agreed with the findings of **Fondran, K. M. (2008)**.

## 6. Conclusions

1. There was significant improvement on back strength due to the influence of Surya namaskar practices among male college students.
2. However the control group had not shown any significant improvement on any of the selected variables.

## 7. References

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