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Santush Chutia
Physical Education Teacher,
Little flower school, Dibrugarh,
Assam.

Satya Changmai
Assistant Professor, Centre for
Studies in Physical Education
and Sports Dibrugarh
University, Assam-786004

Sumit Kr Thapa
Assistant Professor, Centre for
Studies in Physical Education
and Sports Dibrugarh
University, Assam-786004

Bimal Ch. Gogoi
Assistant Professor, Centre for
Studies in Physical Education
and Sports Dibrugarh
University, Assam-786004

Correspondence
Santush Chutia
Physical Education Teacher,
Little flower school, Dibrugarh,
Assam

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Effect of suryanamaskar on flexibility of middle elementary school students

Santush Chutia, Satya changmai, Sumit Kr Thapa, Bimal Ch. Gogoi

Abstract

The purpose of the study was to find out the effect of 6-weeks suryanamaskar on flexibility of middle elementary school students. The study was based on sample of 30 middle elementary school students of Kerekoni adarsh high School from Dhemaji district of assam, $N_1=15$ for experimental group and $N_2=15$ control group. The age of the subjects was ranging from 11-14 years. The variables selected for the present study were Suryanamaskar training (independent variable) and flexibility (dependent variables). Double Groups pre and post test Design was employed. The flexibility data was collected by administrating Sit and Reach test. Pre-test was conducted before starting the training and post-test was conducted after 6-weeks Suryanamaskar training. In order to find out the effect of Suryanamaskar on flexibility analysis of covariance test was employed. The result showed that there was a significant difference between Experimental group and Control group after 6-week Suryanamaskar training on flexibility as the calculated F-value (18.59) was quite more than tabulated F-value (4.21).

Keywords: Suryanamaskar, Flexibility

1. Introduction

Suryanamaskar is an ancient Indian method of offering prayers to the rising Sun in the morning along with a series of physical postures with regulated breathing aiming at range of physical, mental and spiritual benefits (parag). Suryanamaskar is a graceful combined sequence of twelve postures along with regulated breathing and relaxation. It helps to relieve stiffness, revitalizes the body, refreshes the mind and purifies subtle energy channels. There are number of study have been conducted on Suryanamaskar and found significant improvement in flexibility.

Flexibility is the capacity of muscle to extend without any damage. The word flexibility is derived from the Latin word *flectere* or *flexibilis* which mean to bend and is defined as the "ability to be bent, pliable." (Science of flexibility). Flexibility is the one of the most important component of physical fitness.

Practice of asana in one of the best way to improve flexibility. There are plenty of study are to be done to see the effect of yogic asanas on flexibility and Suryanamaskar is itself combination of six asanas.

Purpose of the Study

The main purpose of the study was to determine the effect of 6-week Surya Namaskar practice on flexibility of middle elementary school students of Kerekoni Adarsh high School from Dhemaji district of Assam.

Methodology

For the purpose of this study total thirty male students ($N_1=15$ experimental group and $N_2=15$ control group) were selected as subjects from Middle Elementary School Students of Kerekoni Adarsh high School from Dhemaji district of Assam,. The age of the subjects was ranging from 11-14 years. The experimental group was given 6 weeks Suryanamaskar training on flexibility and control group was not given treatment.

Selection of Variables:

1. Independent variable: Flexibility
2. Dependent variable : Suryanamaskar

Criteria of measures:

Flexibility was measured by sit and reach test and recorded in centimeter

Training Protocol

The training protocol includes 5 days/week; each session of

40minute.Pace of Surya Namaskar was 2 minutes for each round. It means around 10 seconds was taken each step.

Results and Discussions

To find out the significant effect of Surya Namaskar practice on flexibility of middle elementary school students of Kerekoni Adarsh high School from Dhemaji district of Assam. The analysis of covariance was used and has shown in the table below-

Table 1: Analysis of Co-variance of the Means of the Experimental and Control Groups on Flexibility

Test	Experimental Group	Control Group	Source of Variance	df	Sum of Squares	Mean Squares	F-ratio
Pre-test Mean	9.93	12.53	B	1	50.7	50.7	2.33
			W	28	608.67	21.74	
Post-test Mean	13.53	12.6	B	1	6.54	6.54	0.29
			W	28	631.33	22.55	
Adjusted Post-test Mean	26.13	11.34	B	1	26.13	41.26	18.59*
			W	27	11.34	2.22	

* Significant at 0.05 level of confidence

Tabulated $F_{0.05}(1, 27) = 4.21$

It is evident from the above table that there is significant effect of suryanamaskar on flexibility as the 'F'-value of adjusted post- test of 18.59 was numerically quite more than that of tabulated F-value of 4.21 at 0.05 level of confidence.

Analysis of covariance of flexibility has been graphically depicted in Figure below-

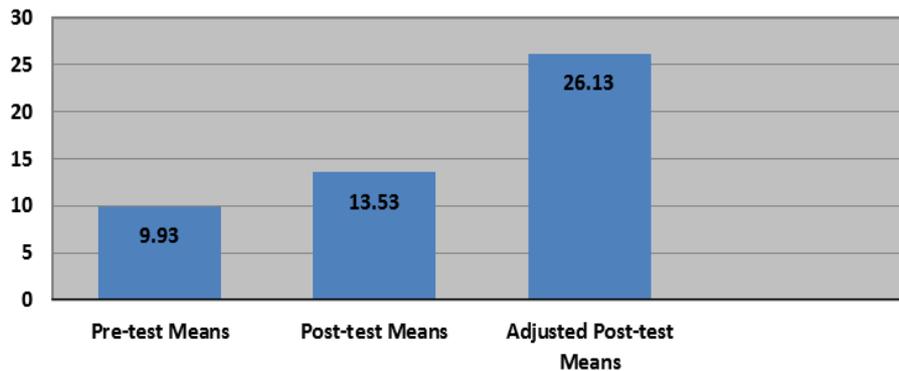


Fig 1

F-ratio of the Pr-test Means, Post-test Means and Adjusted Post-test Means on Flexibility

Discussion of Findings

The finding of statistical analysis reveals that there is significant improvement in flexibility of the selected experimental group due to 6-week surya namaskar practice. It may be attributed to the fact that during Surya Namaskar practice, it requires to stretch different parts of the body which make muscle or joint relax and flexible. This study is also supported by Singh Kanwaljeet *et al.* (2010) [4] who conducted an experimental study entitled “the effect of suryanamaskar yogasana on muscular endurance and flexibility among intercollege yoginis” which indicated that muscular endurance and flexibility significantly improved after six week suryanamaskar yogasana. Choudhary R, Krzytof Stec (2010) [1] also conducted an experimental study entitled “The Effects of Dynamic Suryanamaskar on Flexibility of University Students” which also indicated that flexibility significantly improved after six week Dynamic Suryanamaskar. From the various studies and findings it is confirmed that flexibility significantly improved after Surya namaskar training.

Conclusion

Considering the limitations of the study and on the basis of statistical finding it is concluded that there is significant improvement on flexibility after six week suryanamaskar

training on middle elementary school students of Kerekoni Adarsh high School from Dhemaji district of Assam.

References

1. Choudhary R, Krzytof Stec. The effect of dynamic Suryanamaskar on flexibility of university students. J.A.D. Research. 2010; 1(1):45-48.
2. Kerketta I, Singh K, Bisht S. Effect of six weeks training of Suryanamaskar on flexibility and agility. Laxmi Book Publications, Solapur, 2015; 4(4):1-4.
3. Rana, Asha. Yoga and Health promotion in Schools. New Delhi: Sports Publication, 2007.
4. Singh Kanwaljeet, Singh Bal Baljinder, Va Wilfred. The Effect of Suryanamaskar Yogasana on Muscular Endurance and Flexibility among Intercollege Yoginis. Journal of Physical Education and Sport. 2010; 27(2):61-67.
5. Singh Amandeep, Singh Sukhdev, Gaurav Vishaw. Effects of 6-Weeks Yogasanas Training on Agility and MuscularStrength in Sportsmen. International Journal of Educational Research &Technology. 2011; 2(2):72.
6. Tells *et al.* An Evaluation of the ability to voluntarily reduce the heart rate a month of Yoga practice. Integral Physiological and Behavioural science. 2014; 39(2):119-125.