

Effect of 12 weeks Surya Namaskar and selected asanas practices on coordination in hearing impaired students

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Abstract

The purpose of this study was to find out the effect of 12 weeks of surya namaskar and selected asanas practices on coordination of hearing impaired students. For the purpose of the study, 60 hearing impaired students were selected from Anandha Rangapillai Special School for Visually Handicapped and Hearing-Impaired, Pillaichavadi, Puducherry and their age ranged from 10-15 years. The subjects were divided into three equal groups which were Group I (suryanamaskar group n=20) and Group II (asana group n=20) and Group III (control group n=20). Experimental groups were subjected to a training programme for 12 weeks of surya namaskar and asanas practices. Test was conducted for coordination before and after 12 weeks of training programme and data was collected and analysed statistically by Analysis of covariance to find out the significant level. Since the calculated value of the posttest value 78.31 are greater than the required table value 5.02 at 0.05 level of confidence, there is a significant difference among the three groups. Therefore the hypothesis has been accepted.

Keywords: surya namaskar, hearing impaired, asana, coordination

Introduction

Yoga is accepted to be 4000 to 8000 years of age with its sources in the Indus Valley human progress in the North Western part of India. The word yoga, signifying "solidarity or unity," was gotten from the Sanskrit word yuj which signifies "to join." Yoga was first specified in Apparatus Veda, the most established hallowed content of Brahmanism, which framed the premise of advanced Hinduism in around 1500 B.C. Prior to this time, it is trusted that yoga systems were kept secret by sages and never recorded. In the Upanishads (800-500 B.C.), yoga was thought of as a lifestyle that would enable a person to accomplish liberation from agony. Through resulting eras, writings, and educators, the meaning of yoga has extended to join an extensive variety of orders, methods of insight, and practices (Saraswati, S. 1999) [6].

Surya Namaskar

Suryanamaskar (SN) is a consecutive mix of yogic stances performed progressively in synchrony with the breath. In spite of the fact that there are various reports on the impact of yoga preparing on pulmonary capacities, respiratory weights, handgrip quality and continuance, and cardiovascular parameters, logical writing is lacking on the physiological impacts of SN that is a necessary piece of present day yoga preparing (Paffenbarger *et al.* 1986) [3]. Physical activity passes on various settled health advantages including diminished rates of coronary artery disease, hypertension, non-insulin dependent diabetes mellitus, osteoporosis, colon cancer, anxiety and depression, as well as decreased risk of overall mortality. Notwithstanding these reasonable advantages not as much as half of U.S. grown-ups meet the present proposals for physical activity (Birkel *et al.* 2000) [1]. The practice of yoga for wellness and health in gyms, community centers, and yoga studios is expanding into yoga treatment being given in schools, doctor's facilities, and group treatment focuses.

Indeed, the main yoga magazine, Yoga journals, as of late asserted that "yoga as medication speaks to the following incredible wave" (Yoga Journal 2008) [10].

Hypothesis

It is hypothesized that there would be a significant difference in the coordination among experimental groups by participating in suryanamaskar and asanas practices.

Review of Related Literature

Gitananda and Bhavani (1989) [8] opines that Suryanamaskar when done appropriately fills the amazing need of giving one of the most ideal methodical logical extends for the human body. These deliberately organized developments adjust in reverse bowing with forward bowing, extending upward with extending down. It expands coordination of the body, tones up the organs, decreases sluggishness and weakness and stimulates the entire living being. Profound breathing while at the same time moving adds to the helpful impact. All things considered, Suryanamaskar shapes a standout amongst the absolute best activities known to man. Deepla (2008) conducted a study on developing motor abilities of high school students through yoga. The subjects (N=25) were given 12 weeks of Yoga training. After the training he found significant improvement in cardiovascular endurance, flexibility, freedom from obesity, balance and reaction time. Saminathan (2010) [5] conducted a study to evaluate the influence of selected yogic asana training of flexibility among sports persons. 40 sportsmen were given yoga training for 8 weeks. After 8 weeks of training he found that yoga training significantly improved flexibility among sports persons.

Methodology

The sample for the present study consists of sixty hearing impaired students who were selected from Anandha Rangapillai

Special School for Visually Handicapped and Hearing-Impaired, Pillaichavadi, Puducherry. The subject's age ranged from 10-15 years. They were divided into three equal groups namely group I (suryanamaskar n=20), group II (asana group n=20) and group III (control group n=20). Coordination was the physical fitness variable selected for this study. To assess the coordination alternate ball volley test was administered. Group I was underwent 12 weeks of surya namaskar and

Group II was underwent 12 weeks of asanas practices for 3 days in a week in the evening session. The training programme was administrated for one hour per session. Control group did not undergo any training other than their regular schedule. The pre and posttest were taken before and after the training programme. Analysis of covariance was used to test the level of significance fixed at 0.05.

Table 1: Analysis of Covariance for the data of Coordination of Hearing Impaired Students

Mean	Suryanamaskar Group (N)	Asanas Group (H)	Control group	SOV	Ss	df	M.sq	'F' ratio
Pre Test Mean	12.55	15.15	16.00	B W	129.23 939.50	2 57	64.62 16.48	10.13
Post Test Mean	22.35	18.90	16.70	B W	324.43 912.56	2 57	162.22 16.01	78.31*
Adjusted Post Test Mean	24.06	18.41	15.49	B W	668.63 239.06	2 57	334.34 4.27	88.44

*The required value for DF (2, 57) at 0.05 level = 5.02

Above the table 1 reveals that the pretest means in coordination test of the Suryanamaskar group is 12.55, Asanas group is 15.14, the control group is 16.00 and the 'F' ratio is 10.13 which is insignificant at 0.05 level of confidence. The posttest means of the Suryanamaskar group is 22.35, Asanas group is 18.90, and the control group is 16.70 and the 'F' ratio

of the posttest means are 78.31.38 and the 'F' ratio of the adjusted posttest means are 24.06. Since the calculated value of the posttest value 30.38 are greater than the required table value 5.02 at 0.05 level of confidence, there is significance difference among the three groups. Therefore the hypothesis has been accepted.

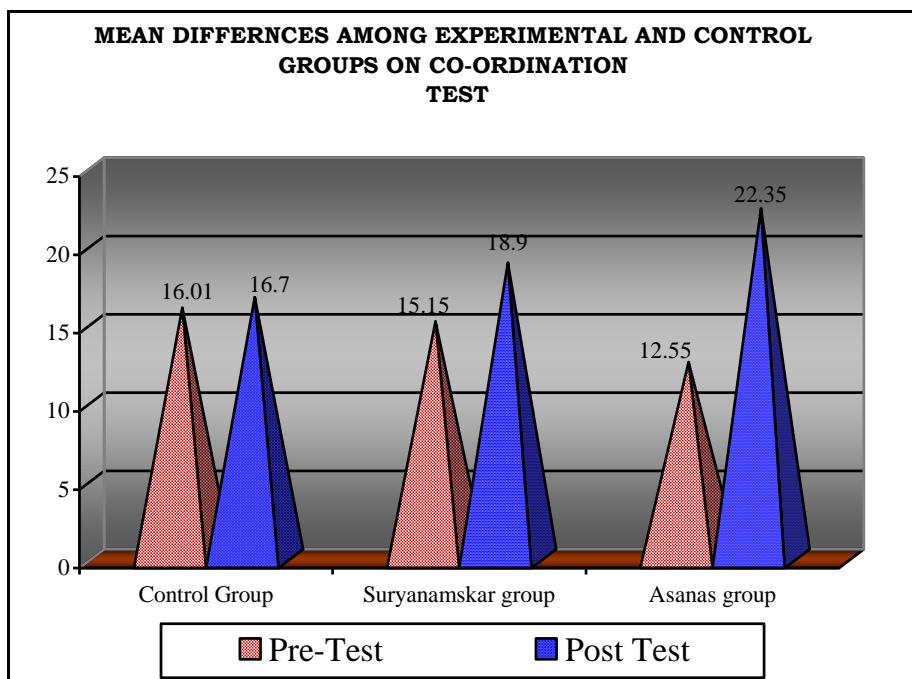


Fig 1: Analysis of Covariance for the data of Coordination of Hearing Impaired Students

Discussion and finding

All the subjects of the experimental groups were underwent regular Suryanamaskar and asanas practices which were assigned to them. From the analysis it is evident that in the case of the physical fitness variable coordination significant changes were noticed after 12 weeks of training programme. But the control group did not show any changes in the variable. Coordination was significantly influenced by the Suryanamaskar and asanas practices.

Since the coordination has been influenced by the Suryanamaskar and asanas practices it is found that there is significant difference among three groups. The study reveals that the experimental groups are significant improved than the control group. Therefore the hypothesis has been accepted.

Conclusions

Within the limitation of the present study the following conclusions were drawn.

Physical variable coordination was significantly improved by the effect of suryanamaskar and asanas practices for the experimental groups when compared to the control group.

The result of the study consonance that with the finding of the following studies such as Sinha, *et al.*, (April 2005) ^[7], Madanmohan *et al.*, (July – September 2005), Pramanik, *et al.*, (March 2009) ^[4].

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