International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 04, 2020
ISSN: 1475-7192

EFFECT OF YOGIC PRACTICES ON SELECTED BIOMECHANICALVARIABLES AMONG SCHOOL BOYS

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ABSTRACT

In this study, the purpose was to investigate the effects of yogic practices on selected biomechanical variables among school boys. A random selection of 150 boys ranging in age from 14 to 17 years old was made amongst the boys at the Government Higher Secondary School, Melavalavu, Melur, Madurai District, and Tamil Nadu in India. Experimental group I (n=50), Experimental group II (n=50), and Control group (n=50) were selected from the selected subjects. The training programme was designed for twelve weeks and Experimental group I (Yogic Practices) some particular Asanas, such as Suryanamaskar, Pranayama, Meditation and Relaxation for five days a week and 60 - 90 minutes/day, Experimental group II (Yogic Practices) some particular, Asanas,--such as Suryanamaskar, Pranayama, Meditation and Relaxation for five days a week and 60 - 90 minutes/day, and group III (n=50) acted as Control group which did not undergo any specific Yogic training programme other than their regular life style. Yoga practices are considered Independent Variables. As dependent variables, Anterior Average Trajectory, as an example of a physiological variable, and biomechanical variables are included. Tests were administered to measure the chosen variables. After completing the yoga training program, a pre-test and post-test were administered. ANCOVA was used to analyze the collected data. The significance between paired adjusted means was tested using Scheffe's post-hoc method. Significant levels were set at 0.05. The study showed that biomechanical variables such as Anterior Average Trajectory, which was compared to the Control group, were significantly improved in the Experimental I and Experimental II.

Key words: *Anterior, Trajectory, Suryanamaskar, Meditation, Pranayama.*

INTRODUCTION

We are living in the millennium era when technology has expanded to include space defence, atomic energy, computers, internet service, etc., because of the internet invention we are now able to collect required information within fractions of a second from any location in

the Universe. Because of this advancement in science and technology, the movement of the human body has also been hampered. Man has become prey to stress, hypokinetic disease, and psychosomatic diseases as his competitive feelings have increased. Therefore, it is time that man no longer disregards the importance of living a healthy life.

METHODOLOGY

Selection of Subjects

Based on school records, fifty school boys were randomly selected from Government Higher Secondary School, Melavalavu, Melur at Madurai district, Tamil Nadu, in India. According to their school records, the subjects' ages ranged from 14 to 17 years old.

Experimental Design

Asana positions of standing, sitting, and kneeling were classified as experimental group I, 2. Asana positions of cross-legged and standing positions were classified as experimental group II. During the posttest on the dependent variables mentioned above, after a period of sixteen weeks of yoga training, Group II (Pron, Supine positions of Asanas, Suryanamaskar, Pranayama) was conducted. On weekdays except on Saturdays and Sundays, the training programme was scheduled from 6 a.m. to 7.30 a.m.

STATISTICAL TECHNIQUE

Subjects for the study were divided into two experimental groups (1 group was assigned to yoga practices group I and 1 group was assigned to yoga practices group II); each group consisted of 50 subjects from both experimental groups. A control group of subjects was not permitted to take part in any training programme besides their routine activities.

TABLE - I
COMPUTATION OF ANALYSIS OF COVARIANCE OF MEANS OF YOGIC PRACTICE I & II AND CONTROL GROUPS ON ANTERIOR AVERAGE TRAJECTORY (in centimetres)

	YPG - I	YPG – II	CG	Source of Variance	Sum of Squares	Df	Means Squares	F-ratio
Pre-Test Means	59.19	59.01	59.33	**BG**	0.518	1	0.518	1.29
				WG	39.357	98	0.402	
Post-Test Means	60.61	61.01	59.39	**BG**	37.088	1	37.088	51.61*
				WG	70.417	98	0.719	
Adjusted Post-Test Means	60.63	61.08	59.38	**BG**	38.529	1	38.529	54.54*
				WG	68.524	97	0.706	

- Significant 0.05

RESULTS OF ANTERIOR AVERAGE TRAJECTORY

The table II shows that the PTM of YP I and II and CG were respectively 59.19, 59.01, and 59.33. The obtained F-ratio for the pre-test was 1.29, which is slightly lower than the table F-ratio of 3.93. Therefore the obtained F-ratio is not statistically significant at 0.05 level of confidence for degree of freedom 1 and 98. This study showed that there was no significant difference between the experimental and control groups, indicating that the randomization process was ideal when it came to assigning the subjects to the groups.

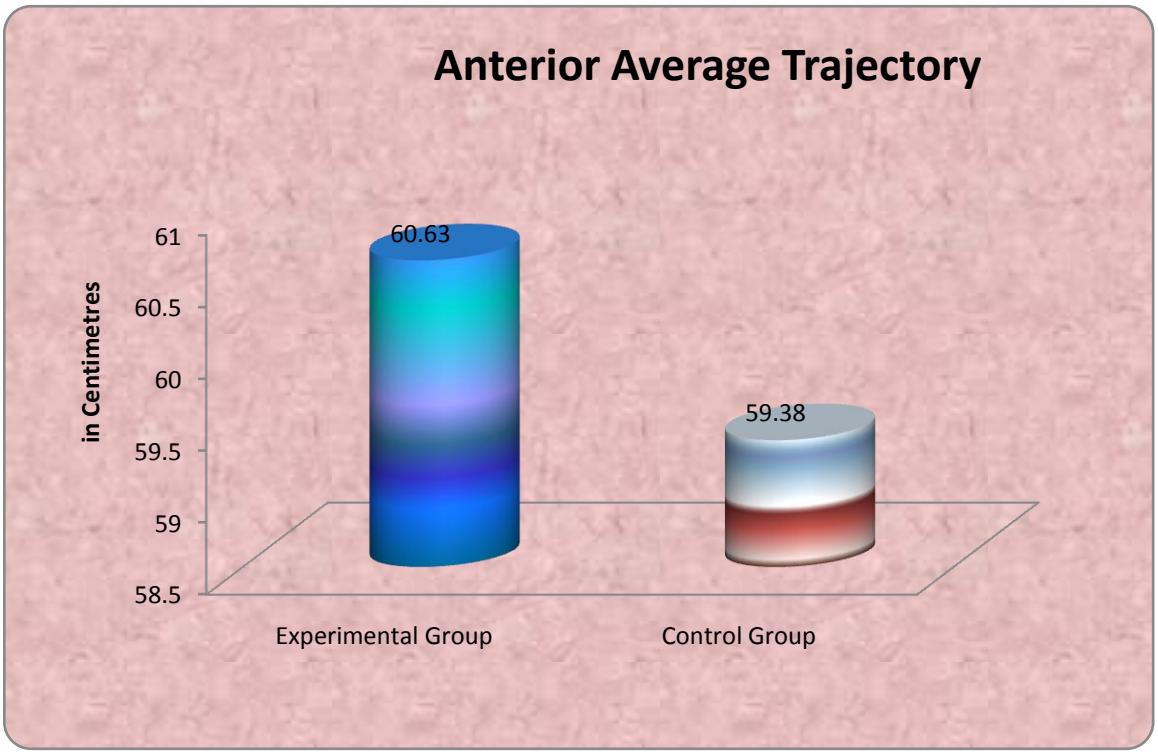
Accordingly, the post-test mean for the YP I and II, as well as the CG was 60.61, 61.01, and 59.39, which was below the table F-ratio of 3.93, due to the post-test F-ratio of 51.61 being significantly higher than the table F-ratio at 0.05 level of confidence. There was significant difference between the post-test mean values of the subjects in this study.

The adjusted post-test means of the YP I and II and CG were 60.63, 61.08 and 59.38 respectively the obtained F-ratio for the adjusted post-test means was 54.54 and the table F-ratio was 3.93. This proved that the experimental trainings on Anterior Average Trajectory led to a significant difference in the means at 0.05 level of confidence for the degree of freedom 1 and 97. The significance of the paired mean difference between means was determined using Scheffe's post hoc test.

Anterior Average Trajectory mean values were presented in Figure I through bar diagrams for enhanced consideration of the results of this study.

FIGURE - I

PRE, POST AND ADJUSTED POST TEST MEANS DIFFERENCES OF THE, YOGIC PRACTICE AND CONTROL GROUPS ON ANTERIOR AVERAGE TRAJECTORY(in centimetres)



DISCUSSION ON ANTERIOR AVERAGE TRAJECTORY

The outcomes introduced in table II showed that acquired changed method on Anterior Average Trajectory among yogic practices bunch I and II with mean worth of 60.63, 61.08 and control bunch with mean worth of 59.38. The distinctions among pre grades, post grades and changed mean scores of the subjects were genuinely treated utilizing ANCOVA and the acquired F esteems were 1.29, 51.61 and 54.54 separately. It was observed that got F

esteem on pre grades were not critical and the got F esteems on post-test and changed means were huge at 0.05 degree of certainty as these were more prominent than the necessary table F worth of 3.93. The ANCOVA test demonstrated that because of twelve weeks preparing of yogic practices has expanded Anterior Average Trajectory than the benchmark group and the distinctions were huge at 0.05 level. Further, it obviously demonstrates that yogic practices bunch essentially worked on Anterior Average Trajectory of the school young men.

CONCLUSIONS

1. In comparison to the control group, Yogic Practice significantly improved all selected biomechanical variables, such as Anterior Average Trajectory.
2. Compared with Experimental Groups I, II, and Control group, Yogic practices produced significant improvements in Anterior Average Trajectory. Experimentation Group II performed better than Experimentation Group I and the Control group in comparison with the Control group

ACKNOWLEDGEMENT

Conflict of Interest: Nil

Ethical Clearance: Nil

Source of Funding: Self

THE AUTHORS CONFIRM CONTRIBUTION TO THE PAPER AS FOLLOWS:

S. Deepaconceptualized and accumulated the data with importance this work.

Dr. D. Rajalakshmi and S. Deepa broke down these information and vital data sources got towards the preparation of the composition. All creators referenced the technique and results and added to a definitive composition.

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