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EFFECT OF YOGIC PRACTICES AND PHYSICAL EXERCISE ON SELECTED PHYSICAL AND PHYSIOLOGICAL VARIABLES AMONG COLLEGE BOYS

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Abstract:

The statement of the problem was effect of yogic practices and physical exercise on selected physical and physiological variables among college boys. This study under investigation involves the experimentation of yoga practice and physical exercise on muscular strength and blood pressure (systolic& diastolic). Only college boys those who were in and around the Tirunelveli and aged between 35 to 40 years were selected. The selected 45 subjects were randomly divided into three groups of fifteen each, out of which group-I (n=15) underwent physical exercise training, group-II (n=15) underwent Yogic practice and group-III (n=15) remained as control. The training programme was carried out for five days per week during morning session only (6 am to 8 am) for 8 weeks. The analysis of covariance (ANCOVA) was used to find out the significant difference if any, among the experimental groups and control group on selected criterion variables separately. Muscular strength was measured by sit-ups test and blood pressure was measured by using sphygmomanometer. Muscular strength has improved for both the experimental groups, such as Yogic practice group and physical exercise group, when compared with the control group. The blood pressure has also decreased in Yogic practice group and physical exercise group when

Key Words: Yogic Practices, Physical Exercises, College Boys

Introduction:

Yoga is one of the size Orthodox systems of Indian Philosophy. It was collated by, coordinated and systemized by Patanjali in his classical work, the 'Yoga Sutras'. Which consists of 185 terse aphorism. Yogasanas are India's unique contribution to Physical Education. Yoga and Physical education may be compared to two bullocks hitched to a shaft as they as they are for judicious blending of the education of the body and mind. There is no denial of the fact that Yoga and physical Education attach importance by gaining the benefits of physical health, mental health, physical fitness and peace of mind through their regular practice, physical education concerns anatomical aspects of the physique with its physiological reactions for a given activity. The ultimate aim of which is to enjoy a good health and optimum fitness. Yoga is providing a multidimensional development and it has now become an adjunct to physical education. According to Swami Satyaanad Saraswathi "Yoga is not an ancient myth buried in oblivion. It is the essential need of today and the culture of tomorrow".

Yoga is the science of right living and, as such. Is intended to be incorporated in daily life. It works on all aspects of the person; the physical, vital, mental, emotional, psychic and spiritual. Yoga aims at bringing the different bodily functions into perfect coordination so that they work for the good of the whole body. Yoga focuses on harmony between mind and body. Yoga derives its philosophy from Indian metaphysical beliefs. The ultimate aim of this philosophy is to strike a balance between mind and body and attain self-enlightenment. To achieve this, Yoga uses movement, breath, posture, relaxation and meditation in order to establish a healthy, lively and balanced approach to life.

Regular practice of asana maintains the physical body in an optimum condition and promotes health even in an unhealthy body. Through asana practice, the dormant energy potential is released and experienced as increased confidence in all areas of life. Yogasanas have a deeper significant value in the development of the physical, mental and personality, where as pure exercises only have a physical effect on the muscles and bones. Involvement in systematic and scientific programmes of conducting the physical training will bring out the desirable changes in physical, physiological variables, contributing to the development of strength, speed and endurance, besides marked changes in resting pulse rate, resting respiratory rate, blood pressure and other physiological variables. Physical exercises are performed quickly and with a lot of heavy breathing Yogasanas are performed slowly with relaxation and concentration. The benefits of various Yoga techniques have been professed to improve body muscular strength, performance, stress reduction, attainment of inner peace and self-realization

Statement of the Problem:

The statement of the problem was effect of yogic practices and physical exercise on selected physical and physiological variables among college boys.

Methods:

This study under investigation involves the experimentation of yoga practice and physical exercise on muscular strength and blood pressure (systolic& diastolic). Only college boys those who were in and around the

Tirunelveli and aged between 35 to 40 years were selected. The selected 45 subjects were randomly divided into three groups of fifteen each, out of which group-I (n=15) underwent physical exercise training, group-II (n=15) underwent Yogic practice and group-III (n=15) remained as control. The training programme was carried out for five days per week during morning session only (6 am to 8 am) for 8 weeks. Muscular strength was measured by sit-ups test and blood pressure was measured by using sphygmomanometer.

Analysis of Data:

The data collected prior to and after the experimental periods on muscular strength and blood pressure (systolic & diastolic) on Physical exercise group, Yoga practice group and control group were analysed and presented in the following table 1.

Table 1: Analysis of Covariance and 'F' Ratio for Muscular Strength and Blood Pressure (Syatolic and Diastolic) for Physical Exercise Group, Yoga Practice Group and Control Group

Variable Name	Group Name	Yoga Practice Group	Physical Exercise Group	Control Group	'F' Ratio
Muscular Strength	Pre-test Mean ± SD	26.20 ± 0.11	26.22 ± 0.21	26.23 ± 0.22	0.451
	Post-test mean ± SD	28.11 ± 0.25	27.87 ± 0.51	26.23 ± 0.21	48.12*
	Adj. Post-test mean ± SD	28.02	27.75	26.63	55.21*
Systolic Blood Pressure	Pre-test Mean ± SD	128.31 ± 5.20	128.22 ± 5.02	164.7 ± 3.14	0.112
	Post-test mean ± SD	120.11 ± 4.99	122.21 ± 4.10	165.20 ± 2.51	12.53*
	Adj. Post-test mean ± SD	120.18	122.75	165.401	73.94*
Diastolic Blood pressure	Pre-test Mean ± SD	83.07 ± 3.22	83.17 ± 3.21	127.53 ± 6.50	0.22
	Post-test mean ± SD	80.13 ± 4.11	81.70 ± 4.98	128.12 ± 6.56	4.22*
	Adj. Post-test mean ± SD	80.81	81.26	128.54	12.22*

Significance at .05 level of confidence

(The table value required for significance at .05 level of confidence with df 2 and 43 and 2 and 42 were 3.21 and 3.22 respectively).

Further to determine which of the paired means has a significant improvement, Scheffe's test was applied as post-hoc test. The result of the follow-up test is presented in Table-II.

Table 2: Scheff's Test for the Difference between the Adjusted Post-Test Mean of Muscular Strength and Blood Pressure (Systolic and Diastolic)

Adjusted Post-test Mean of Muscular Strength:				
Yoga Practice Group	**Physical Exercise Group**	**Control Group**	**Mean Difference**	**Confidence Interval at .05 level**
28.02		26.63	1.39*	0.899
28.02	27.75		0.27	0.899
	27.75	26.63	1.12*	0.899
Systolic Blood Pressure:				
120.18		128.54	8.36*	4.481
120.18	122.75		2.57	4.481
	122.75	128.54	5.79*	4.481
Diastolic Blood Pressure:				
80.81		83.37	2.56*	1.189
80.81	81.26		0.45	1.189
	81.26	83.37	2.11*	1.189

* Significance at 0.05 level of confidence

Results:

The training intensity for Yogic practice and physical exercise was shown in appendices. Before applying the experiment all the subjects of the Yoga practice, physical exercise and control groups were attended the pre-test, which was conducted a day prior to the commencement of the training and the data were collected on muscular strength and blood pressure (systolic and diastolic). After eight weeks of training the post-test was conducted one day after the training period to find out any changes in the criterion variables. The

analysis of covariance (ANCOVA) was used to find out the significant difference if any, among the experimental groups and control group on selected criterion variables separately. In all the cases, .05 level of confidence was fixed to test the significance, which was considered as an appropriate. Since there was three groups were involved in this study, the Scheff S test was used as post-hoc test and it was shown in table 2.

After applying the analysis of covariance, the result of this study showed that there was a significance difference among Yoga practice, Physical exercise and control groups on the changes in muscular strength and blood pressure after eight weeks of training. The criterion variables such as, muscular strength was improved for the Yoga practice group and physical exercise group and systolic & diastolic blood pressure has significantly decreased after the Yoga practice, physical exercise period. Further, comparing the adjusted post-test means of all the criterion variables, such as, muscular strength and systolic and diastolic blood pressure, both the training groups were significantly increased performance after the training period, when compared with the control group. Basically the Yoga practice and Physical exercise has tremendously improves the physical, physiological parameters.

Conclusions:

- Muscular strength has improved for both the experimental groups, such as Yogic practice group and physical exercise group, when compared with the control group.
- The blood pressure has also decreased in Yogic practice group and physical exercise group when compared with the control group.

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