



EFFECT OF WEIGHT TRAINING AND YOGA ON SELECTED MOTOR FITNESS VARIABLES OF COLLEGE LEVEL VOLLEY BALL PLAYERS

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ABSTRACT

Introduction:- Yoga has been a spiritual discipline which focuses on bringing harmony between mind and body. It is an art and science of healthy living and weight training is organized exercise in which muscles of the body are made to contract in response to external weights, body exercise or resistance. **Purpose:-** The purpose of the study was the effect of twelve (12) weeks weight training and Yoga on selected motor fitness variables of college going volleyball players within the age group of 18-25 years. **Materials & Methods:-** Total thirty (30) subjects were taken for the study from baliapal college of physical education, baliapal, balasore, odisha. The motor fitness variables were strength, agility, flexibility, speed and Cardiovascular endurance which were measured by standing broad jump, Shuttle run test, sit and reach test, 50-meter dash test and 1 mile run and walk test respectively. The Pre-test and Post-test were taken of all the parameters before and after the twelve (12) weeks of yoga and weight training programme. The subjects were randomly selected for the study. **Results & Discussion:-** The findings of the present study reveals that there was significant difference found in the motor fitness variables after the twelve (12) weeks of yoga and weight training programme. The pre-test mean scores of all motor fitness variables were 6.02, 5.50, 5.80, 12.18 and 4.55 respectively. Similarly, the post-test mean scores of all the motor fitness variables were 8.82, 4.20, 8.50, 9.16 and 3.05 respectively. Therefore, it was clear from the results that the volleyball players were better improve their fitness after the given period of twelve (12) weeks yoga and weight training programmes. The Independent paired 't'-test was used at 0.05 level of significance. **Conclusion:-** On the basis of the obtained result, it has been observed that yoga and weight training programme can improve the motor fitness variables of college going volleyball players and play an important role in healthy impact on the life style of a man.

KEYWORDS : Yogasana, Weight training and Motor fitness variables.

INTRODUCTION:-

Motor fitness is a term that describes an athlete's ability to perform effectively during sports or other physical activity. An athlete's motor fitness is a combination of five different components, each of which is essential for high levels of performance. It also refers to the ability of an athlete to perform successfully at their sports. Speed, Strength and Flexibility are the basic components of Motor Fitness and are required for good performance in sports like Football, Badminton and Volleyball.

Motor ability means the ability to perform fundamental motor skills involving all basic performance traits including co-ordination or arm eye, and foot eye, muscular power, agility, muscular strength, cardio-respiratory endurance, flexibility and speed. (H.Harrison Clarke, 1976). Many researchers in the field of Physical Education and Sports have emphasized the importance of Motor ability, technical and tactical ability, physical and mental efficiency, for achieving top performance. Volleyball is the most popular game in the world and require high-level of motor ability, strength, speed agility, endurance, balance, co-ordination and skillful bodily movement. Physical fitness is the pre-requisite of the ability to perform any motor tasks in day-to-day life as well as in sport. It has been considered as one of the most important aspects of human existence. Physical fitness not only a state of younger's but is the reality for all ages. Physical fitness is the product of physical exercises and exercise is very much related to health and wellbeing. The findings of the present study will encourage the youth of the nation to participate in Games and Sports.

The word '**yoga**' is derived from the roots of Sanskrit 'Yuj' which means to join, to attach, to bind, yoke, and a concentrate or one attention. It also means Union. Yoga is true union of our will with the will have had. The literal meaning of the word 'Yoga' is 'yoke'. It means for uniting the individual spirit with the Universal spirit or God. Yoga means the Experience of oneness or unity with inner being. It is a science by which the

individual approaches truth. Yoga is not religion it is a method by which one obtain Control of one's latent powers. It is the means to reach complete Self-Realization.

In Bhagvad Gita, the main stress is on karma yoga (yoga by action). Work alone is your privilege, never the fruits thereof. Never let the fruits of action be your motive; and never cease to work. Work in the name of Lord, abandoning selfish desires. Be not affected by success or failure. This equipoise is called Yoga. A man who cannot control his mind will find it difficult to attain this Divine communion; but the self-controlled man can attain it if he tries hard and directs his energy by the right means.

Weight training is organized exercise in which muscles of the body are made to contract in response to external weights, body exercise or resistance, or other devices in order to stimulate growth and strength. Weight training is also called 'resistance training' and 'strength training'.

Volleyball was invented in 1895 by William G. Morgan, physical director of the Young Men's Christian Association (YMCA) in Holyoke, Massachusetts. It is a team sport in which two teams of six players are separated by a net. Each team tries to score points by grounding a ball on the other team's court under organized rules. It has been a part of the official program of the Summer Olympic Games since Tokyo 1964.



PLAYING VOLLEYBALL

METHODOLOGY:-**SUBJECTS:-**

Total thirty (30) subjects were taken for the study from baliapal college of physical education, baliapal, balasore, odisha. The motor fitness variables were strength, agility, flexibility, speed and endurance which were measured by standing broad jump, Shuttle run test, sit and reach test, 50-meter dash test and 1 mile run and walk test respectively.

PROCEDURE:-

Total Thirty (30) college going male volleyball players were randomly selected for the study. The motor fitness variables were strength, agility, flexibility, speed and cardio-vascular endurance which were measured by standing broad jump, Shuttle run test, sit and reach test, 50-meter dash test and 1 mile run and walk test respectively. The Pre-test and Post-test were taken of all the parameters before and after the twelve (12) weeks of yoga and weight training programme. The subjects were randomly selected for the study. For statistical analysis and Interpretation of data 't' test was conducted at 0.05 level of significance. The training schedule was fixed in the morning session as well as in the afternoon session minimum time duration 60-90 minutes per session with various types of weight training and yogasanas including slow warming up, warm down and resting time between and set of the exercises. A pre-test mean score was taken on all the selected college going students and the scores were recorded. Similarly, after twelve (12) weeks of yoga and weight training a post-test data was taken and scores were recorded.

STATISTICAL ANALYSIS:-

The Independent Paired 't' test was conducted for evaluate the data and the level of significance was fixed at 0.05 level of confidence. To get the final result Mean, SD, Mean Difference and 't'-test were calculated.

SCHEDULE OF YOGA PRACTICES:-

Bhujangasana . Halasana, . Ardh-Shalabhsana . Ardh-Matsyendrasana

Ardh-Halasana Shalabhasana, . Vakrasana . Viparitkarani Chakrasana . Naukasana, Paschimottan Parvatasana Dhanurasana . Makrasana, Shavasana Kapalbhathi , Anulom-Vilom, Meditation.

MOTOR FITNESS VARIABLES AND THEIR TEST ITEM AND UNIT:-

Srl. No.	Fitness Variables	Test Item	Unit
1.	Strength	Standing Broad Jump	FIT
2.	Agility	Shuttle Run Test	Minute
3.	Flexibility	Sit And Reach Test	CM
4.	Speed	50 Yard Dash	Second
5.	Cardio-vascular Endurance	1 Mile Run And Walk Test	Minute

RESULTS & DISCUSSION:-

The result of the study has been discussed under the following table with the graphical presentation. Table-1 shows the significant difference between pre-test and post-test scores on motor fitness variables of college going volleyball players.

Table - 1 Significant Difference Between Pre-test And Post-test Mean Scores On Motor Fitness Variables After Calculating The Mean, SD, MD And T-ratio Of College Going Volleyball Players:-

Sl. No.	Motor fitness Variables	Test	Mean	MD	t-ratio	Sig.
1.	Strength	Pre - test	6.02	2.80	3.40	0.05*
		Post - test	8.82			
	Agility	Pre - test	5.50	1.30	2.32	
		Post - test	4.20			
	Flexibility	Pre - test	5.80	2.70	3.05	
		Post - test	8.50			

Speed	Post - test	8.50			
	Pre - test	12.18	3.02	4.05	
Cardio-vascular Endurance	Post-test	9.16			
	Pre - test	4.55	1.50	2.52	
	Post - test	3.05			

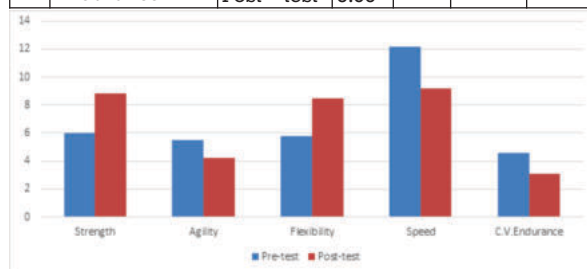


Fig.1:- Graph Showing The Significant Difference Between Pre-test And Post-test Mean Scores On Motor Fitness Variables Of College Going Volleyball Players.

DISCUSSIONS:-

Better Motor Ability means high level of physical fitness which helps in the positive self-perception and improves the total fitness. Bole (1971) Gangly (1974) and Gharote (1976) have shown that practice of yoga asana had improved various components of fitness, such as flexibility, strength, endurance, balance and cardiovascular fitness. Byramjee (1975) had reported that during Ujjayai instead of reduction, effective alveolar ventilation showed slight increase. Bhole and Gore (1976) revealed that the practice of Kapalabhati for 45 secs, on females brings about a significant increase in breath holding time. The average increase is seen to be around 22 sec. Comparison between the average of three pre experimented attempts with experimental conditions indicates that the difference between them is significant at 0.5 level. K. Rajan (1980) determined the comparative effects of selected weight training and specific exercises on Volleyball playing ability. 60 students were trained for six weeks divided into three groups, group A received weight training and group B received specific exercises whereas group C served as control group. After training was administered the study concluded that: Volleyball playing can be improved with the help of weight training or specific exercises.

It was observed from the above table that there was a significant difference in Motor fitness variables i.e Strength, Agility, Flexibility, Speed and cardio-vascular endurance of college level Volleyball male players. The pre-test mean scores of all motor fitness variables were 6.02, 5.50, 5.80, 12.18 and 4.55 respectively. Similarly, the post-test mean scores of all the motor fitness variables were 8.82, 4.20, 8.50, 9.16 and 3.05 respectively. Therefore, it was clear from the results that the volleyball players were better improve their fitness after the given period of twelve (12) weeks yoga and weight training programmes. It was also evident from the table that the calculated value of each variable is more than the Table value at 0.05 level of significant. So, the results were significant.

CONCLUSIONS:-

On the basis of the results obtained from the present empirical investigation and within the limitation, the following conclusions may be drawn.

There was a significant improvement in Strength, Agility, Flexibility, Speed and Cardio-vascular Endurance of college level Volleyball male players after the given period of twelve (12) weeks yoga and weight training programmes.

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