



Yogic Practice and Flexibility Training on the effect of Muscular Strength among Inter Collegiate Women

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Abstract

The study is design to find out the effect Yogic Practice and Flexibility Training affected Muscular Strength in Intercollegiate Women. To attain the purpose forty five (N=45) women from different colleges affiliated to Anna University Erode Zone, Tamilnadu, India were selected at random as subjects. Yogic Practice (n-15), Flexibility Training(n-15), and the Control group were divided into three groups of fifteen each. The training programme was only twelve weeks period. Muscular Strength was the selected as criteria variable, and it was measured using the 1RM Bench Press both before and after the training period. The dependent t-test was used to statistically analysis the data collected from all of the groups before and after the experimental period. To determine the significance, the degree of confidence was set at 0.05 for all cases. The results of the study revealed a substantial difference in Muscular Strength between the Yogic Practice, Flexibility Training, and Control groups among players. Flexibility Training significantly increased Muscular Strength compared to among the experimental groups.

Key words: Sports Training, Yogic Practice, Flexibility Training, Muscular Strength

INTRODUCTION

The word Yoga is derived from Sanskrit word 'Yog', which means 'Jod' in Hindi or 'Joining' in English. This is joining of 'Jivatam' (Human) with 'Parmatma' (God). Through the practice of Yoga, one can have self-realisation and achieve God. 'Yog' word became Yoga in English. For a simple person, Yoga is another form of physical exercise. By doing physical exercises, one can develop only body muscles. But through Yoga, one achieves the conditioning of even all internal organs like heart, brain, spleen, liver, lungs. Apart from these vital organs, through yoga all the glands like thyroid, pituitary, and Pancreas gland of the brain, function better.

Yoga is practical aid, not a religion. Yoga is an ancient art based on a harmonizing system for development of the body, mind, and spirit. The regular practice of yoga will not only lead you to a sense of peace and well-being, but will also give you a feeling of being at one with the nature. In the present time, more and more people, especially the Westerners, are resorting to Yoga to find a cure for chronic health problems and attain a peace of mind. They are also curious about knowing what exactly is Yoga and what all are included in it. Although many of us are well aware of the health benefits of Yoga, not everyone knows about the origin and exact history and Evolution of Yoga. There are many theories associated with Yoga. It is mentioned in Rig Veda, and its evidence was found in the oldest civilization of Indus-Saraswati, which is considered to be more than 5000 years old (3000 B.C.), it means Yoga is older than 5000 years. It was invented by 'Rishi Munis' for doing meditation, but apart from that, it has a very good effect on the body (*Chandra T.V, 2020*).

Flexibility is the ability of a joint or series of joints to move through an unrestricted, pain free range of motion. Although flexibility varies widely from person to person, minimum ranges are necessary for maintaining joint and total body health. Many variables affect the loss of normal joint flexibility including injury, inactivity or a lack of stretching. The range of motion will be influenced by the mobility of the soft tissues that surround the joint. These soft tissues include: muscles, ligaments, tendons, joint capsules, and skin. A lack of stretching, especially when combined with activity can lead to a fatigue induced soft tissue shortening over time.

Stretching is most often thought of as a way to loosen muscles, but it is also effective in increasing the mobility of all soft tissues that restrict flexibility. Stretching will not head off delayed-onset muscle soreness - the kind that generally occurs the day after unaccustomed strenuous exercise.

Stretching your body to become more supple and flexible offers many physical benefits. Such training allows for easier and deeper movements while building strength and stability. Stretching your muscles and joints also leads to greater range of motion, improved balance, and increased flexibility (*Lau, C., Yu, R., & Woo, J. 2015*).

Muscular strength is determined by how much force you can exert or how much weight you can lift. Building muscular strength uses heavier weights for fewer repetitions. Muscular endurance refers to the ability of a muscle to sustain repeated contractions against resistance for an extended period of time (*Klinge et al., 1997*).

METHODOLOGY

To attain the purpose of the study forty five (N= 45) women from various colleges affiliated to Anna University Erode Zone, Tamilnadu, India were selected at random as subjects. Yogic Practice (n-15), Flexibility Training (n-15), and the Control group were divided into three groups of fifteen each. The training programme was only twelve weeks period. Muscular Strength was selected as criteria variable and it was assessed by 1RM Bench Press both before and after the training period. The dependent t-test was used to statistically assess the data collected from all of the groups before and after the experimental period. To determine the significance, the degree of confidence was set at 0.05 for all cases.

RESULTS AND DISCUSSION

The results of the dependent 't'-test on the data obtained for Muscular Strength of the subjects in the pre-test and post-test of the experimental groups and control group have been analyzed and presented in Table-1.

Table – 1

**Summary of Mean Standard Deviation and dependent 't' test for the pre and post tests on Muscular Strength of Experimental groups and Control group
(Unit of Measurement of Muscular Strength is Kilograms)**

Test		Yogic Practices group	Flexibility Training group	Control group
Pre Test	Mean	41.33	42.17	42.50
	SD	3.14	3.40	4.65
Post Test	Mean	50.50	54.83	43.60
	SD	3.06	3.82	3.87
"t" Test		8.10*	9.60*	0.70

**Significant at 0.05 level.*

The table value required for 0.05 level of significance with df 14 is 2.15.

Table-1 shows that the pre-test mean and standard deviation of Muscular Strength values of Yogic Practice group, Flexibility Training group and Control group are 41.33 ± 3.14 , 42.17 ± 3.40 and 42.50 ± 4.65 respectively. The post-test mean and standard deviation are 50.50 ± 3.06 , 54.83 ± 3.82 and 43.60 ± 3.87 respectively.

The obtained dependent t-ratio values between the pre and post test means on Muscular Strength of Yogic Practice group, Flexibility Training group and Control group are 8.10, 9.60 and 0.70 respectively. The table value required for significant difference with df 14 at 0.05 level is 2.15.

Since, the obtained ‘t’ ratio value of Yogic Practice group and Flexibility Training group are greater than the table value, it implies that Yogic Practice group and Flexibility Training group have significantly enhanced the performance of Muscular Strength.

The pre and post mean values of Yogic Practice, Flexibility Training and Control group on Muscular Strength were graphically represented in the Figure -1.

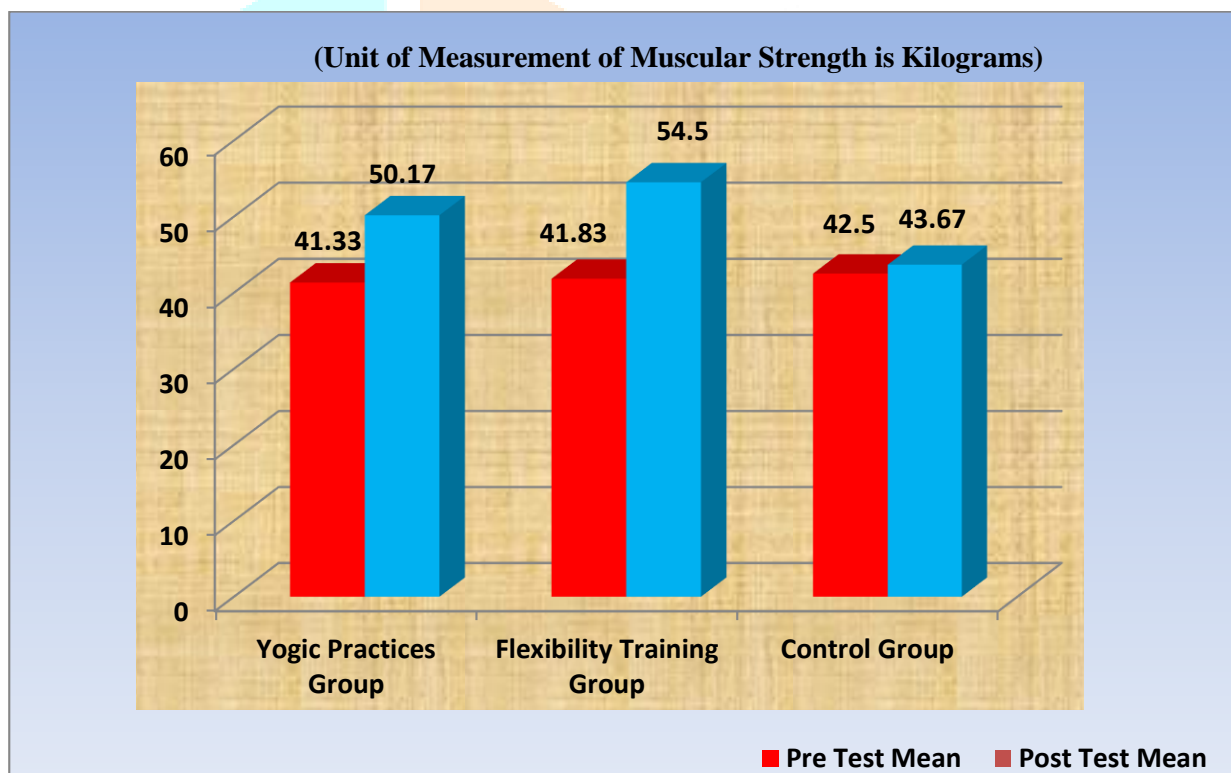


Figure: 1 The Pre and Post Mean values of Yogic Practice, Flexibility Training and Control group on Muscular Strength

CONCLUSIONS

From the analysis of the data, the following conclusions were drawn.

1. There was a significant difference among Yogic Practice, Flexibility Training and Control group on Muscular Strength among college women.
2. Significant improvements noticed on selected Muscular Strength due to Yogic Practice and Flexibility Training.
3. Among the experimental groups, Flexibility Training group significantly improved the Muscular Strength than that of Yogic Practice group.

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