

**EFFECT OF YOGIC TRAINING AND PHYSICAL PRACTICES ON FLEXIBILITY****P. S. Vinoth Kumar¹ and Dr. D. Devaki²**¹Physical Director , KSG College of Arts And Science, Coimbatore .²Asst Professor, Deputed to Director of Physical Education GPT, RK Nagar, Chennai.**ABSTRACT**

Flexibility is important for completing everyday activities with ease. To investigate this study 42 men players from various department of KSG College of Arts and Science, Coimbatore, forty two men players were taken as subjects. The subjects were administered to find the Flexibility. Flexibility can be defined as the driving force behind all the actions of an individual. Flexibility is based on your emotions and achievement-related goals. The subjects were randomly divided into three equal groups they were high level performance and low level performances. The tool was sit and reach method was using to collect the measurement was in (centimeter) carefully analyzed with a separate scoring scale and the collected data were calculated with one-way analysis of (ANCOVA). The result showed that there was a significant difference in the Flexibility among high and low performance.

KEYWORDS: Flexibility , emotions and achievement-related goals , muscle elasticity.

INTRODUCTION:

Flexibility is important for completing everyday activities with ease. There are three components that affect flexibility: muscle elasticity and length, joint structure and nervous system. A well-stretched muscle more easily achieves its full range of motion. This improves athletic performance Exercises that improve leg strength, balance and co-ordination can help people maintain and improve their muscle strength and avoid falls as they get older

Ray et.al., (2001) study was undertaken to observe any beneficial effect of yogic practices during training period on the young trainees. 54 trainees of 20-25 years age group were divided randomly in two groups i.e. yoga and control group. There was improvement in performance at submaximal level of exercise and in anaerobic threshold in the yoga group. Shoulder, hip, trunk and neck flexibility improved in the yoga group.

Padmini and group (2007) were to compared the effect of a short-term intensive residential yoga program with physical exercise (control) on pain and spinal flexibility in subjects with chronic low-back pain (CLBP). Seven (7) days of a residential intensive yoga-based lifestyle program reduced pain-related disability and improved spinal flexibility in patients with CLBP better than a physical exercise regimen.

João Rafael Valentim-Silva 2016 and his group To determine whether high intensity power exercise influences muscular flexibility in an **John Ebnezar and others (2012)** studied were to evaluate the efficacy of integrating hatha yoga therapy with therapeutic exercises for osteoarthritis (OA) of the knee joints. An integrated approach of hatha yoga therapy is better than therapeutic exercises as an adjunct to transcutaneous electrical stimulation and ultrasound treatment in improving walking pain, range of knee flexion,

Jeam Marcel Geremia, et.al., (2015) aimed to evaluate the effects of physical training using the Pilates method on body flexibility of elderly individuals. There was an observed increase in flexion (22.86 %; $p < 0.001$), extension (10.49 %; $p < 0.036$), and rotation to the left side (20.45 %; $p < 0.019$) of the cervical spine; flexion (16.45 %; $p < 0.001$), extension (23.74 %; $p = 0.006$), lateral bending right (39.52 %; $p < 0.001$) and left (38.02 %; $p < 0.001$), and right rotation (24.85 %; $p < 0.001$) and left (24.24 %; $p < 0.001$) of the thoracolumbar spine; flexion (right—8.80 %, $p = 0.034$; left—7.03 %, $p = 0.050$), abduction (right—20.69 %, $p < 0.001$; left—16.26 %, $p = 0.005$), and external rotation (right—116.07 % and left—143 %; $p < 0.001$ for both directions) of the glenohumeral joint; flexion (right—15.83 %, $p = 0.050$; left—9.55 %, $p = 0.047$) of the hips; and bending (right—14.20 %, $p = 0.006$; left—15.20 %, $p = 0.017$) the knees.

John Ebnezar and group (2012) acute manner. For Comparison of the pre- and post-tests proved to be statistically significant from the baseline from the fourth to the seventh repetitions. Strength exercises at 85% of 1RM seem to significantly increase range of motion in an acute manner, and the growth of this range of motion has a dose-effect response.

METHODOLOGY

To investigate this study 42 men players from various department of KSG College of Arts and Science, Coimbatore, forty two men players were taken as subjects. The subjects were administered to find the Flexibility. The subjects were randomly divided into three equal groups they were high level performance and low level performances. The tool was sit and reach method was using to collect the measurement was in (centimeter) carefully analyzed with a separate scoring scale and the collected data were calculated with one-way analysis of (ANCOVA). The result showed that there was a significant difference in the Flexibility among high and low performance

SIT AND REACH TEST

Purpose: The objective of this test is to measure the anterior trunk flexion.

Equipment: Flexomeasure case with yardstick and tape.

Procedure: Line up the 15-inch marks of the yardstick with a line on the floor and tape the ends of the stick to the floor so that the flexo measure case was face down. The subject was asked to sit down and line up his heels with the near edges of the 15inch mark and slide his seat back beyond the zero end of the yards stick. Have a partner stand and brace his toes against his yard heels. Also have an assistant on each side to hold his knees in a locked position as he prepares to stretch. With heels not more than 5 inches apart, slowly stretched forward, while pushing the flexomeasure case as far down the stretch as possible with the fingertips of both hands. Reading was taken at the near edge of the flexomeasure case.

Scoring: The best of three trails was the individuals test score (Johnson & Nelson, 1998).

EXPERIMENTAL DESIGN AND STATISTICAL TECHNIQUE

The experimental design used in this study was random group design involving 57 subjects, who were divided at random in to three equal groups of twenty each. All the five group subjects were selected from the same population. No effort was made to equate the groups prior to the commencement of the experimental treatment. The pre test means of the selected dependent variables was used as a covariate. The data collected from the five groups prior to and post experimentation on selected dependent variables were statistically analyzed to find out the significant difference if any, by applying the analysis of covariance (ANCOVA). Since five groups were involved, whenever the obtained 'F' ratio value was found to be significant for adjusted post test means, the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases the level of confidence was fixed at 0.05 level for significance.

TABLE - I
ANALYSIS OF COVARIANCE OF DATA ON FLEXIBILITY BETWEEN PRE AND POST TEST OF CONTROL, YOGIC PRACTICES AND PHYSICAL EXERCISES GROUPS

Test	Control Group	Yogic practices Group	Physical exercisess group	Source of variances	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Pre test								
Mean	18.80	18.33	18.13	Between	3.51	2	1.76	0.35
SD	2.37	2.32	2.03	Within	211.47	42	5.04	
Post test								
Mean	18.73	15.73	16.53	Between	72.40	2	36.20	8.19*
SD	2.05	2.02	2.23	Within	185.60	42	4.42	
Adjusted Post test								
Mean	18.40	15.81	16.79	Between	50.85	2	25.43	45.41*
				Within	22.94	41	0.56	

*Significant at 0.05 level of confidence.

The table value required for significance at 0.05 levels with df 2 and 42 & 2 and 41 are 3.222 & 3.226 respectively.

The results of the study showed that there was a significant difference among control, yogic practices and physical exercises on flexibility. However the improvement was in favor of yogic practice group.

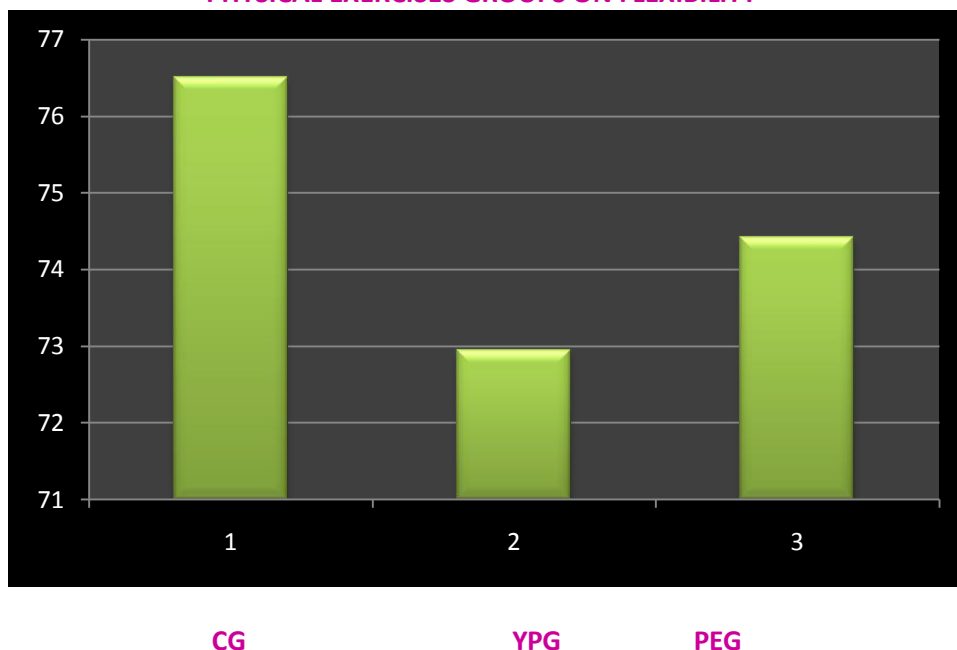
Since three groups were involved the Scheffe's post hoc test was applied to find out the paired mean difference if any, and it is presented in the table IV

TABLE -II
SCHEFFE'S POST HOC TEST FOR THE DIFFERENCE BETWEEN THREE PAIRED ADJUSTED POST TEST MEANS OF FLEXIBILITY

ADJUSTED POST TEST MEANS			MEAN DIFFERENCE	CONFIDENCE INTERVAL
CONTROL GROUP	YOGIC PRACTICES GROUP	PHYSICAL EXERCISES GROUP		
18.40	15.81	-	2.59*	0.69
18.40	-	16.79	1.61*	0.69
-	15.81	16.79	0.98*	0.69

*Significant at 0.05 level of confidence.

THE ADJUSTED POST TEST MEAN VALUES ON FLEXIBILITY FOR CONTROL, YOGIC PRACTICES AND PHYSICAL EXERCISES GROUPS ON FLEXIBILITY



RESULTS AND DISCUSSION

Rajakumar, done a research on “The Impact of Yogic Practices and Physical Exercises on Selected Physical Variables among Inter-Collegiate Soccer Players”. The yogic practice group showed significant improvement on flexibility. The physical exercises group showed significant improvement on speed, agility, then the other two groups after 12 weeks of training. Key words: Physical variables, Experimental groups, Control group, Speed, Agility, Flexibility, 50 meters Run, Shuttle run, Sit and reach test.

Tiken, Kosana, Joy and Inaobi have conducted a study on influence of specific yoga and aerobic exercise on physical fitness of SAI (NERC IMPHAL) STC Athletes yoga and aerobic had justified the fact that both yoga and aerobic exercise were effective in developing physical fitness and (ii) in yoga and aerobic exercise groups, boys were found superior to girls group in sit and reach (flexibility) and 12 min run – walk (endurance), 50 yards (speed).¹

CONCLUSION

There was a significant improvement in yogic training group when comparatively Physical training group and control group. Physical training group also got improvement when compared to control group.

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