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GRT EFFECT OF SURYANAMASKAR AND SWISS BALL PRACTICE ON FLEXIBILITY OF SEDENTARY GIRLS

G. Vasanthi and Subitha Mathew

Associate Professor, Pondicherry University .
M.Phil Scholar, Pondicherry University.

Abstract:-The aim of this study is to find out “The effect of Suryanamaskar and Swiss ball training on flexibility on sedentary girls”. Forty five healthy, untrained girls were selected from Yenepoya Medical College, Mangalore, Karnataka, for this research study. The subjects were divided randomly into three equal groups namely one control and two experimental groups consisting of fifteen girls in each group. The subject's age ranged between 18 to 23 years. Experimental groups were given 12 weeks Suryanamaskar and Swiss ball training and the control groups were not allowed to participate in any of the training programmes. The training programme was given three days in a week for 45 minutes. Pretest and post test was conducted for both the groups on flexibility before and immediately after the training. The data were computed statistically by using (ANOCOVA) to find out the significant changes. The result reveals that the Suryanamaskar practice group and Swiss ball training group has significant effect on flexibility of sedentary girls when compared to control group. When compared between the two experimental groups Suryanamaskar was found to be better than the Swiss ball training on flexibility.

Keywords: Suryanamaskar, Swiss ball, flexibility.

1. INTRODUCTION

Yoga gives an insight to know more about the self. The dormant inner powers blossom to give complete bliss and an introduction to the true self. It enables one to meet the supreme Soule and attain complete bliss. Yoga is important in our everyday life. It strengthens our physical and mental power and has numerous health benefits. Yoga is a type of exercise which is performed using various types of body postures. It does not need any special workout equipment's. Suryanamaskar is the ideal practice to increase awareness and good health and wellbeing. It stimulates and balances all the systems of the body, including the endocrine, circulatory, respiratory and digestive systems. It stretches and strengthens every muscle in the body and increases flexibility. The correct use of an exercise ball or Swiss ball during ones fitness routine may help improve their flexibility. One can use an exercise ball to warm up and stretch their muscles before they begin a workout. This may possibly prevent injury, and also help to keep their muscles and joints functional.

METHODOLOGY

The study was designed to find out the effect of Suryanamaskar and Swiss ball practice on flexibility of sedentary girls. Forty five subjects were selected from the Yenepoya medical college, Mangalore and their age ranged from 18-23 years. The subjects were equally divided into three groups namely control and two experimental groups with fifteen subjects in each group. Control group did not undergo any training programme rather than their daily routine work. The experimental group (Group I) was treated with Suryanamaskar training and experimental group (Group II) was treated with Swiss ball training. Training was given for a period of 12 weeks. Sit and reach flexibility test was administered to find out flexibility. The results of pre-test and post- test were compared by using Analysis of Covariance (ANCOVA). The subjects living condition and life style were not taken into consideration for this study.

Table I
ANALYSIS OF COVARIANCE FOR PRE-TEST, POST -TEST AND ADJUSTED POST TEST ON FLEXIBILITY AMONG THE THREE GROUPS
 (Scores in Numbers)

Test measures	Mean scores			Analysis of covariance				
	Exp. group I (Suryanamaskar)	Exp .group II (Swiss ball)	Contro l group	Source of variance	Sum of squares	Df	Mean squares	'F' ratio
Pre – test	29.85	28.55	30.09	Between	20.60	2	10.30	1.21
				Within	522.11	42	12.43	
Post –test	33.07	31.01	29.74	Between	84.68	2	42.34	4.95*
				Within	359.43	42	8.56	
Adjusted Post –test	32.79	31.74	29.28	Between	96.96	2	48.48	40.29*
				Within	49.34	41	1.20	

* Significant at 0.05 level of confidence
 The required table value df(2, 42) at 0.05 level= 3.22
 df(2,41) at 0.05 level=3.23

Table –I shows that there is no significant difference among the three groups for the pre- test, since the calculated value 1.21 is less than the required table value 3.22

For the post test, there is significant difference among the three groups since the calculated value 4.95 is greater than the required value 3.22

The obtained 'F' ratio for the adjusted post-test means 40.29 is higher than the table value 3.23 at 0.05 levels. Hence it is concluded that there is significant improvement on flexibility among the three groups.

Since there is a significant difference, Scheffe's post hoc test was administered to find out the significant paired mean difference. This calculation helps to find out which group has significant improvement after the training programme. The result of Scheffe's post hoc test for flexibility is presented in table- II

TABLE –II
SHEFEE'S POST-HOC TEST FOR THE SIGNIFICANT DIFFERENCE BETWEEN PAIRED ADJUSTED POST-TEST MEAN ON FLEXIBILITY
 (Scores in Numbers)

Exp. Gp I	Exp. Gp II	Cntrl Gp	MD	CI
32.80	31.74	-	1.06*	1.02
32.80	-	29.28	3.51*	1.02
-	31.74	29.28	2.45*	1.02

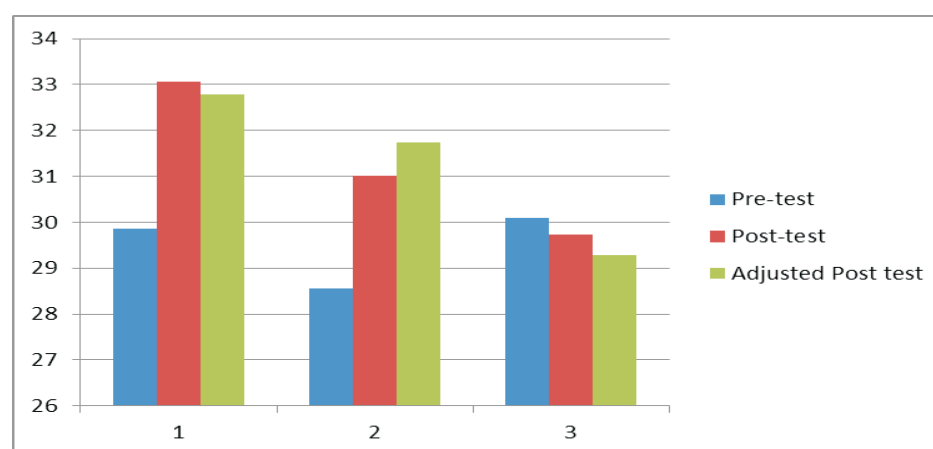
*Significant at 0.05 level of confidence.

Table –II shows that there is a significant difference between the Suryanamaskar and swiss ball group as the mean difference 1.06 is greater than the CI value 1.02 at 0.05 level of confidence. There is a significant difference between the Suryanamaskar and control group as the mean difference 3.51 is greater than the CI value at 0.05 level of confidence. There is also a significant difference between the Swiss ball group and control group as the mean difference 2.45 is greater than the CI

value at 0.05 level of confidence. The result reveals that there is a significant effect due to Suryanamaskar and Swiss ball training on flexibility when compared to the control group. The Suryanamaskar training is found to be superior to the Swiss ball training.

The mean values on flexibility are graphically represented in figure-1

FIGURE 1
BAR DIAGRAM SHOWING THE MEAN VALUES OF SURYANAMASKAR GROUP, SWISS BALL GROUP AND CONTROL GROUP ON FLEXIBILITY (Scores in Numbers)



CONCLUSIONS

Within the limitations and delimitation of the study, the following conclusion are drawn

- 1.It is concluded that there is a significant improvement on flexibility among the three groups.
- 2.The two experimental groups is found to be significant when compared to the control group.
- 3.The Suryanamaskar practice has significantly improved flexibility better, than the Swiss ball training.

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