



E-ISSN: 2707-7020
P-ISSN: 2707-7012
JSSN 2020; 1(1): 55-56
Received: 16-01-2020
Accepted: 24-02-2020

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Effect of suryanamaskar on selected physical fitness components among obese girls

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Abstract

The purpose of the study was to find out the effect of suryanamaskar on selected physical fitness components among obese girls. To achieve the purpose of the present study, the girls in the age group of 15 to 17, totally 350 girls studying in schools from Government high school kote Chikkamagalur were selected as subjects, by using purposive sampling method. As the purpose of the present study was to study the impact of suryanamaskar on selected physical fitness components among obese school girls, initially the height and weight of girls were measured. Based on the height and weight, the body mass index was calculated. Based on the BMI of selected subjects (N= 350) the subjects on or above 25 were further screened and totally 79 students were found as obese girls. Thus the obese girls were selected as subjects finally for the present study. In the present study, pre-post randomized experiment design was adopted as it was considered as appropriate. For this, from the selected subjects (N = 79, BMI<25) 40 girls were randomly selected. The suryanamaskar group produced significant improvement in physical fitness components. The 't' values of the selected variables have reached the significant level. In the control group the obtained 't' value on all the variables were failed to reach the significant level. In comparing the effect of suryanamaskar group with control group on physical fitness components, from the obtained t-ratios, it was observed that suryanamaskar group showed better performance on increasing abdominal muscular strength and endurance, flexibility, cardio-respiratory endurance and decreasing in body weight.

Keywords: Suryanamaskar, physical fitness components, obese girls

Introduction

Good health and freedom from disease is the best achievement of life. Modern medicine has made tremendous progress in recent years. Obesity is a chronic state of being overweight. Now a day's obesity is problem of every person. Over two thirds of adults are overweight and nearly one quarter obese. Children and adolescents are becoming increasingly overweight and obese. Overweight imposes unnecessary strain on the various bodily systems especially the circulatory, respiratory and eliminative systems.

Methodology

The purpose of the study was to find out the effect of suryanamaskar on selected physical fitness components among obese girls. To achieve the purpose of the present study, the girls in the age group of 15 to 17, totally 350 girls studying in schools from Government high school kote Chikkamagalur were selected as subjects, by using purposive sampling method. As the purpose of the present study was to study the impact of suryanamaskar on selected physical fitness components among obese school girls, initially the height and weight of girls were measured. Based on the height and weight, the body mass index was calculated. Based on the BMI of selected subjects (N= 350) the subjects on or above 25 were further screened and totally 79 students were found as obese girls. Thus the obese girls were selected as subjects finally for the present study. In the present study, pre-post randomized experiment design was adopted as it was considered as appropriate. For this, from the selected subjects (N = 79, BMI<25) 40 girls were randomly selected. The randomly selected subjects (N=40) were further randomly assigned into two groups equally. Each group was consisting of 20 subjects. The experimental group I underwent the training of suryanamaskar group (SNG). The group II used as control group (CG) and keep off from any form of training and experimental group was treated with their respective training for about 5 days a week for 12 weeks of training period. Thus the experiment design for the present study was done. The collected data were analysed using paired 't'-test.

Table 1: Selection of Tests

Physical Fitness Components		Test	Units
1	Abdominal Muscular Strength and Endurance	Sit-Ups	In numbers
2	Flexibility	Sit and reach	In centimeters
3	Cardio Respiratory Endurance	12minutes Run and Walk Test	In meters
4	Body Weight	Kilogram of Weight	In kilograms

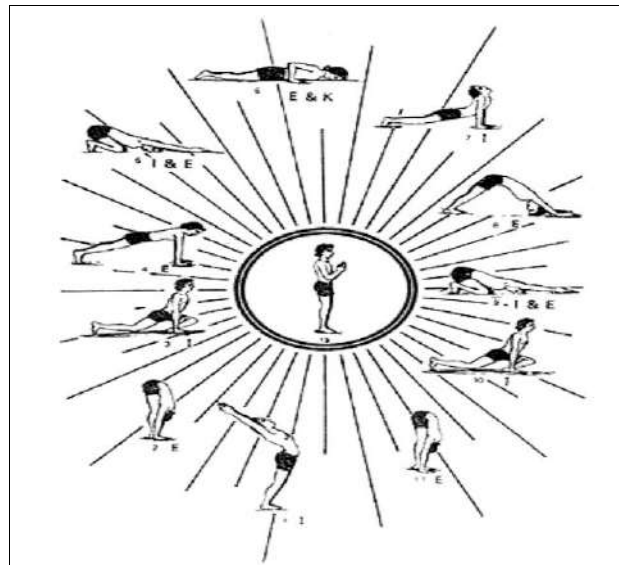


Table 2: Significance of mean gains/ losses between pre and post test of suryanamaskar group

Variables		Pretest (Mean and S.D)	Posttest (Mean and S.D)	MD	SE	't' ratio
Physical Variables	Abdominal Muscular Strength and Endurance	14.42±2.45	22.43±2.36	8.01	0.86	7.17*
	Flexibility	15.12±1.47	21.27±1.11	6.15	0.62	6.21*
	Cardio-respiratory Endurance	976.30±119.11	1470.70±79.12	906.30	29.70	15.52*
	Body Weight	74.17±1.36	70.21±1.51	3.96	0.36	10.11*

Above table indicates the obtained 't' values on variables for the Suryanamaskar Group are: 7.17 for abdominal muscular strength and endurance, 6.21 for flexibility, 15.52 for cardio-respiratory endurance, 10.11 for body weight. The obtained t- values to be significant at 0.05 level for degree of freedom 19 the required critical value was 2.09. Thus the observed t-values on variables are found to be higher than the required critical value (2.09). It was inferred that the obtained 't'-ratio on physical fitness components were statistically significant. From the baseline abdominal muscular strength and endurance, flexibility and cardio-respiratory endurance was increased. And the body weight was decreased.

Results

1. The suryanamaskar group produced significant improvement in physical fitness components. The 't' values of the selected variables have reached the significant level.
2. In the control group the obtained 't' value on all the variables were failed to reach the significant level.
3. In comparing the effect of suryanamaskar group with control group on physical fitness components, from the obtained t-ratios, it was observed that suryanamaskar group showed better performance on increasing abdominal muscular strength and endurance, flexibility, cardio-respiratory endurance and decreasing in body weight.

Conclusions

Results of the present study explain clearly that in case of physical fitness components, the observed results significantly favoured the suryanamaskar group as compared to control group. Similarly the impact of experimental group of was found as significantly higher than control group on abdominal muscular strength and endurance, flexibility, cardio-respiratory endurance body weight.

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