



Effects of Yogic practice on Muscular Endurance of Obese Women

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ABSTRACT

The purpose of the present study is to find out the effects of varied package of yogic practice on cardio respiratory endurance of obese women. To achieve the purpose ninety obese women were selected from GMDC college Nakhatrana. And Kanakpar Arts and Commerce College as subjects each. Group 1 Underwent first package of yogic practices (asana), Group 2 underwent second package of yogic practices (asana and pranayama) and Group 3 underwent third package of yogic practices (combined practice of suryanamaskur, asana and pranayama) for five days per week for twelve weeks. All the subjects of three groups were tested on Muscular Endurance prior to and immediately after the training Programmed, it was tested by bent-knee sit-ups. ANCOVA was used to analyze the significant difference, if any among the groups. The Scheffe's post hoc test was used to find out the paired mean differences. Cardio respiratory endurance significantly improved due to the varied packages of yogic practice of obese women.

Key words : *Suryanamaskar, Asana, Pranayama, Muscular Endurance*

Introduction

Obesity is a medical condition in which excess body fat has accumulated to the extent that is may have an adverse effect on health, leading to reduced life mass index (BMI) , a measurement which compares weight and height, defines people as overweight (pre-obese) if their BMI is between 25 and 30 kg /m², And obese when it is greater than 30 kg / m². In this study an attempt is made to find effects of varied packages of yogic practice on Muscular endurance of obese women.

Methodology

During the training intervention the experimental group 1(asana practice) performed first four weeks (1-4 wk) holding each asanas 30 seconds / 3 sets, second four weeks (5-8 wk) 45 seconds / 2 sets and third four weeks (9-12 wk) 60 seconds / 1 set respectively. For experimental group 2 (asana and pranayama) performed first four weeks (1-4 wk) holding each asana 15 second / 2 sets with pranayama 15 second / 2 sets , second four weeks (5-8 wk) each asanas 30 second / 2 sets with each pranayama 30 seconds / 2 sets and third weeks (9-12 wk) each asanas 45 seconds / 1 sets. For experimental group 3 (combined practice of suryanamaskar , asana and pranayama) performed for first four weeks (1-4 wk) suryanamaskar 12 counts / 4 sets / holding each asana 10 second / 1 set and each pranayama 10 seconds / 1 set, for four weeks (5-8 wk) suryanamaskar 12 counts / 3 sets, each asanas 20 second / 1 set and each pranayama 20 sec./ 1 set and the third fourth weeks (9-12 wk) suryanamaskar 12 counts / 2sets, each asana 30 sec. / 1 set and each pranayama 30 sec. / 1 set respectively.

Table - I ANCOVA of pre, post and adjusted post test on muscular endurance of three experimental groups (scores in no.)

Test	Exp. Group 1	Exp. Group 2	Exp. Group 3	Source of variance	Sum of squares	Df	Mean Squares	F value
Pretest μ	22.03	22.13	22.03	Between	0.20	2	0.10	0.03
S.D.	1.45	2.28	1.85	Within	321.40	87	3.69	0.03
Posted test μ	27.80	27.27	30.20	Between	146.49	2	73.24	14.91*
S.D.	2.01	1.44	2.86	Within	877.47	87	4.91	14.91*
Adjusted Post test μ	27.81	27.25	30.21	Between	148.71	2	74.36	16.24*
				Within	393.86	86	4.58	16.24*

*Significant at .05 level. Tab values at .05 level for 2 and 87 and 2 and 86 are 3.115 respectively.

Table -1 shows the analysed data on muscular endurance. The pre-test means of muscular endurance were 22.03 for experimental group 1, 22.13 for experimental group 2 and 22.03 for experimental group-3. The obtained “F” ratio of 0.03 was lesser than the table F-ratio 3.114. Hence the pre-test was not significant at 0.05 level of confidence for the degrees of freedom 2 and 87. The post - test means of muscular endurance were 27.80 for experimental group 1 , 27.27 for experimental group 2 and 30.20 for experimental group 3 . The obtained “F” ratio of 14.91 was higher than the table F- ratio 3.114. Hence the post-test was significant at 0.05 level of confidence for degrees of freedom 2 and 87. The adjusted post – test means of Muscular endurance were 27.81 for experimental group 2 and 30.21 for experimental group 3. The obtained “F” ratio of 16.24 was higher than the table F-ratio 3.115. Hence the adjusted post-text was significant at 0.05 level of confidence for the degrees of freedom 2 and 86. Since, three groups were compared , whenever the obtained ‘F’ ratio for adjusted post text was found to be significant , the scheffe’s text to find out the paired mean difference was conducted. It was presented in table 1 (a)

Table – II Order Scheffe’s Post hoc test mean differences on muscular endurance among three groups (scores in numbers)

Exp. Group 1	Exp.group 2	Exp. Group 3	Mdf	Confidence interval value
27.81	27.25	-	0.57*	0.164
27.81	-	30.21	2.40*	0.164
-	27.25	30.21	2.97*	0.164

Table – II shows the schefee’s post hoc test result. The ordered adjusted final mean difference for Muscular endurance of experimental groups I and II and experimental group III were tasted for significance at 0.05 level of confidence against confidential interval value. The mean differences between experimental group I and experimental group II, experimental group I and experimental group III and experimental group II and experimental group III were 0.57, 2.40 and 2.97 respectively and it was seen to be greater than the confidential interval value of 0.164. Hence the above comparisons were significant.

All the three packages have improved the muscular endurance on the sample population. The third package (combined practice of suriyanamaskar, aasanas and pranayama) greater influence than the other two. The second package (aasanas and pranayama) is the next best and the first package (aasanas practice) has the least influence.

Conclusion

Third package of yogic practice (combined practice of suriyanamaskar, asana and pranayama) highly influenced of muscular endurance greater than that of second and first packages of yogic practices.

Second practice of yogic practices(asana and pranayama) highly favored of muscular endurance greater than that of first package of yogic practice. First package of yogic practices (aasana) resulted in lesser gain in of Muscular strength endurance.

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