

THE EFFECT OF RECREATIONAL BASED WORKOUT VS AEROBIC WORKOUT TO REDUCE ABDOMINAL OBESITY IN POST PARTUM WOMEN

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ABSTRACT

Background: Obesity is an important health problem worldwide. The evidence consistently shows that excessive gestational weight gain contributes to higher postpartum body weight. Approximately 13% to 20% of pregnant women experience substantial weight retention by 1 year postpartum weight at least 5 kg above preconception weight.

Objectives: To compare the effect of Recreational Based Workout Versus Aerobic Workout to reduce Abdominal Obesity in Post-Partum Women.

Methodology: The Comparative study was carried out on 30 subjects. The recruited subjects were screened for abdominal obesity using the anthropometric measurements including, waist circumference, waist-hip ratio. They were divided into two groups, group-A underwent static cycling with recreational activities (throw ball, volley ball, disc throw) while Group-B underwent static cycling with Aerobic Exercise. The outcome measure was waist circumference & waist- hip ratio.

Result: After 3 months of intervention, significant improvement was recorded in both groups. The groups A waist circumference mean & SD value (34.76+2.29) was significant as compared to group-B (36.6+2.73) & with significant p- value (0.0001).Waist- hip ratio in group A (0.71+0.11) shows improvement than group B (0.86+0.02) with significant p-value (0.0001).

Conclusion: The result demonstrated that the effect of Static cycling with Recreational Workout was effective in reducing waist circumference and waist-hip ratio in abdominal obese subject when compared with static cycling with abdominal exercise.

Keywords: Abdominal obesity, waist circumference, Waist-Hip ratio, Aerobic exercise, , Recreational workout.

INTRODUCION

Obesity is a major health problem worldwide. Belly fat or belly fat is just a condition of excess fat accumulation in the abdomen, when excess belly fat around the stomach has the potential to negatively affect health and cardiovascular diseases, hyperinsulinemia, fat disorders. blood, etc. Increase the rate of death and disease. Excessive weight gain during pregnancy leads to weight retention after childbirth and often increases with each pregnancy.

"Women who do not lose weight during pregnancy after six months are less likely to lose weight in the following years" - Dr. Judith Reichman

Olsen et al (2003) studied the weight gain of 540 healthy pregnant women. 30% percent earned in medical instruction. Although the mean maintenance weight gain at the one-year assessment was 1.51 ± 5.95 kg, 25% of women experienced a weight gain of 4.55 kg or more within one year of giving birth. child.

The aim of the study was to compare the effect of recreational versus aerobic exercise in reducing abdominal fat in postpartum women.

A literature review focusing on weight loss methods (medical, surgical, and physical) for abdominal obesity. A specific exercise routine has not been designed to treat belly fat. Therefore, it is necessary to find out "Effect of recreational gymnastics compared with aerobics in reducing belly fat in postpartum women" is very necessary.

METHODOLOGY

The study was conducted at SRI Moolakulamudherry and RET apartment, ariyurpudhucherry. The subjects of this study were postpartum women who gave birth at least one year before and up to three years after giving birth with abdominal obesity. The total number of subjects participating in the study was 30 subjects. The convenience sampling technique was used in this study and the subjects were randomly divided into 2 groups. The intervention period for each participant was 4 weeks and the total study period was 2 months.

OUTCOME MEASURES

Waist size
Hip-to-waist ratio.

PROCEDURE

GROUP A - ENTERTAINMENT TRAINING

Classes begin with a 10-minute warm-up that includes stretching. Ankle Bounces, Walking Quad Stretch, Walking Lunge Stretch, Side Lunge, Kneeling Hip Bend, Kneeling Quad Stretch, followed by one of the 25-minute recreational exercises such as FISHING - volleyball - discus throwing. The sessions ended with a 10-minute cool-down that included stretches, kneeling hip flexors, ITB, kneeling quads, calf stretches, alternating leg drops, hamstring stands. **GROUP OF BAGS**

AEROBIC EXERCISES

Aerobic exercise routine Based on the principles of aerobic exercise, an aerobic exercise routine has been prepared and includes the following important elements. Warm-up (10 minutes) Training mode (brisk walking, stationary bike, skipping rope) Workout duration (30 minutes/session, 5 days/week for 6 weeks) Recovery (slow walking plus exercises) Static stretching exercises for 8 minutes 10 minutes)

FOR BOTH GROUP abs:

The target group started doing abdominal exercises such as: vertical leg crunch, long arm crunch, planks, exercise bike

RESULTS

In this study, pre- and post-intervention differences within the two groups were analyzed by paired "t" test and between the two groups were analyzed by unpaired "t" test for each outcome measure. Statistical significance was set at $p < 0.0001$. Table 1: Shows the pre- and post-test values of the two groups A: (paired t-test values). The p-value of waist circumference for group A is which is considered more significant. The waist 't' value for group A is 21.64 with 14 degrees of freedom. Table-2: Shows before and after test values of two groups of B: (paired t-test value) The "p" value of waist circumference for group B is which is considered as significantly. The "t" value for group B is 9.97 with 14 degrees of freedom. Graph-1: shows waist circumference values before and after the test (group A&B). In the in-group analysis, the pre- and post-test values of recreational training for group A significantly reduced waist circumference compared with group B with a value ($p < 0.0001$). Table 3: Shows before and after test values of 2 groups A: (paired t test values). The p-value of the hip-waist ratio of group A was which was considered more significant. The `t` value of the hip-to-waist ratio for group A is 19.35 with 14 degrees of freedom. Table 4: Shows pre- and post-test values of two groups of B: (paired t-test value. The "p" value of hip-waist ratio for group B is as is significantly. The "t" value of the hip-to-waist ratio for group B is 6.45 with 14 degrees of freedom. Chart-2: Shows the values before and after the hip-waist ratio test (groups A and B). In the in-group analysis, the pre- and post-test values of recreational exercise for group A reduced the hip-to-waist ratio more significantly than that of group B with a value ($p < 0.0001$). Table-5: Shows pre- and post-test values of both groups -A and B: (unpaired t-test value) The "p" value of waist circumference is considered is extremely important. The "t" value of the waist circumference is 6.47 with 29 degrees of freedom. Table 6: Shows before and after test values of 2 groups -A and B: (unpaired t-test values). A `p` value of the hip-to-waist ratio of is considered extremely important. The "t" value of the hip-to-waist ratio is 8.67 with 29 degrees of freedom. Chart-3: Shows the value before and after checking the waist circumference and waist-to-hip ratio (groups A and B). Between groups, the analysis showed extremely statistically significant changes in the unpaired t-

test value of group A EO (t=6.04; p HIP- EO (t= 8.67; pGroup b Unpaired 't' test data results showed that Group A who received recreational training showed more improvement than Group B's aerobic training.

Table 1:

Group A	Mean	SD	t- value	p- value
Pre- test	40.40	2.74	21.64	0.0001
Post- test	34.76	2.29		

Table 2:

Group B	Mean	SD	t- value	p- value
Pre- test	39.96	2.64	9.97	0.0001
Post- test	36.66	2.73		

Table 3:

Group A	Mean	SD	t- value	p- value
Pre- test	0.88	0.015	19.35	0.0001
Post- test	0.71	0.113		

Table 4:

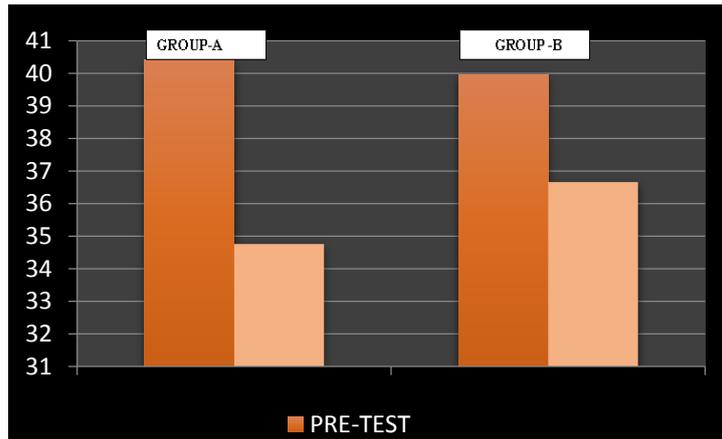
Group B	Mean	SD	t- value	p- value
Pre- test	0.85	0.028	6.45	0.0001
Post- test	0.82	0.022		

Table 5:

Groups	Mean	SD	t- value	p- value
A	6.04	1.10	6.49	<0.0001
B	3.3	1.53		

Table 6:

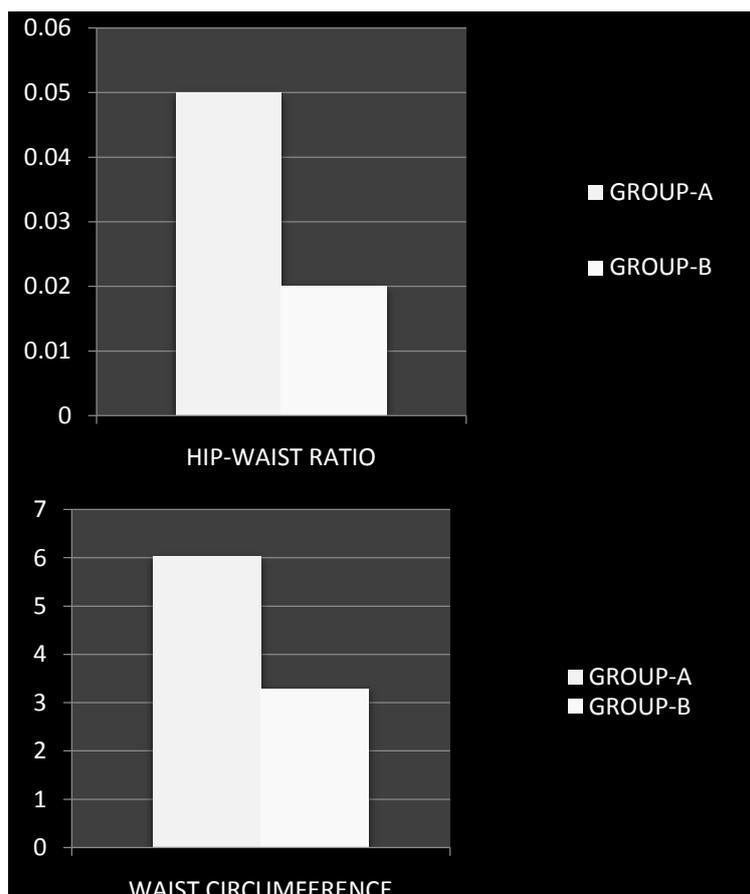
Groups	Mean	SD	t- value	p- value
A	0.05	0.00012	8.67	<0.0001
B	0.02	0.00014		



Graph 1: Showing the pre and post-test values of Waist Circumference (Group A&B).



Graph-2 : Showing the pre and post -test values of Hip-waist ratio(Group-A & B).



Graph-3: Showing the pre and post –test value of waist circumference & Hip waist Ratio (Group –A & B)

DISCUSSIONS

The study by Friedenreich CM, Woolcott CG and colleagues conducted a similar trial with 320 postmenopausal women, randomly assigning them to participate in 45 minutes of moderate to vigorous aerobic activity, five days a week or into the control group. Most women are overweight or obese to begin with. After one year, exercise significantly reduced body weight, body fat, and belly fat compared with no exercise (9)

This study was selected to compare the effect of recreational exercise with aerobic exercise on abdominal obesity in postpartum women. Most postpartum women still gain weight during pregnancy even one year after giving birth. Therefore, to lose belly fat, it is necessary to have a mode of moderate physical activity that will reduce belly fat. Patients selected based on inclusion criteria were assessed using waist circumference and hip-waist ratio, and data were analyzed, showing that recreational exercise is more beneficial compared with aerobic exercise.

CONCLUSION

In this study, it was concluded that Group - A (recreation-based exercise) showed a significant improvement in waist circumference and hip-to-waist ratio compared with Group B (aerobic training).

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