

The Effect of Low-impact Aerobic Dance on Weight Loss in Women

Andi Fepriyanto¹, Dian Helaprahara¹, Ainur Rasyid¹
¹Department of Physical Education, STKIP PGRI Sumenep, Indonesia

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Abstract: Women have several parts of the body that can be used to fill with fats. The fat is at risk for obesity. Low impact aerobics is a gymnastics that displays movements and tempos that are easy to do. The aim of this study is to study low impact aerobic exercise on weight loss in women. 20 subjects were taken from the *Dharmawanita* association. The method in this study used experiments, so that the pre-test and post-test data were taken and analyzed. The results of research conducted routinely 3 times a week showed that ($p < 0.05$) so that low impact aerobic exercises can significantly reduce women's weight gradually.

1 INTRODUCTION

Women have special tissue for hoarding fat, giving them a typical feminine form, for example in the gluteal area (buttocks), and in the shoulder and chest area.

Piles of fat tissue in these particular areas are firmly returned by a woman's body if it lacks of energy, and decrease only when the energy deficiency is even further. Women increase their excess weight by 20% of their ideal weight according to their age, so that they can be obese (Sediaotama, 2000). Without exception for newborn women, obesity cannot be returned. (Hugh and Jamie, 2014) reported that the majority of adult women failed to meet recommended levels of aerobic activities, including the ones whom have a great opportunity to increase aerobic participations.

Motions can help to reduce fat and make women healthy and pleasant to look. Some of these activities include walking, jogging, or cycling. Nowadays, people rarely do these activities due to lack of time, and as a result, they gain some weight (obesity). It is difficult for obese people to carry out activities. This is risky to reduce the physiological functions of the human body.

One of the easiest ways to lose weight is by exercising. Gymnastics has many variations and is easy for all to follow. Gymnastics is an activity related to the aerobic energy system.

Low impact aerobic exercises are types of aerobic exercises carried out with a low rhythm, which is slower with the basic motion of the road, so that it leads to a pleasant and easy to follow direction. Low impact aerobics is also an aerobic physical activity that is useful for improving and maintaining health and endurance of the heart, lungs, blood circulation, muscles and joints (Rosa, Siti and Herlina, 2015). In addition, these movements can consist of various movements that are repeated and combined from various movements. The combination of movements should be no more than three movements so that they are easily carried out correctly in order to achieve accurate intensity (Giriwijoyo and Sidik, 2013).

This study aims to determine whether there is an effect of giving a low impact aerobic exercise on women's body weight.

2 METHOD

This research is a pre-experimental design study. Therefore, it is often referred to as "quasi experiment" by using a type of research design pretest and posttest group design.

2.1 Subject

The research subjects used in this study were 20 mothers selected from *Dharmawanita*, Saronggi District. The subjects' anthropometrics were shown in table 1. Each subject filled out the consent letter to following this study completely.

2.2 Procedure

The procedure was described as follows. First, the subjects were measured for anthropometrics, including his weight for the initial data. Then, the subjects underwent low impact aerobic exercises, from warming up to cooling down, 3 meetings in one week, for 6 weeks with a duration of 40 minutes in each exercise. (Giriwijoyo and Sidik, 2013) to lose weight, the minimum duration should not be less than 30 minutes. After the treatment is finished, the subjects were weighed again to find out the final weight to be used as the final data and after that the data were analyzed.

2.3 Data Analysis

After the data is obtained, the data were analyzed. The data analysis in this study was done using the t-test statistical method to determine differences in body weight before and after being given treatment for women. The mean and standard deviation should also be calculated prior to t-test, so that later it will be easier to analyze different test data.

3 RESULT

The research data were obtained from the results of the pre-test and post-test body weight of the research subjects. They were then analyzed. In the table 2, it can be seen that the average body weight is 59.5 ± 3.98 . The ideal body weight with an average subject height 153.65 ± 3.6 , obtained an average of 53.55 ± 3.9 , where the period the body of the subject has an overweight of 59.4 kg. If it is associated with a body mass index table with an average height of 153, normal weight should be in the range of 44-54 (Giriwijoyo and Sidik, 2013). After a low impact aerobic exercise, the subjects' body weights were 58 kg in average, so there was a decrease of 1.5 kg.

Table 1: Anthropometric research subjects

Anthropometric	Rata-rata (Mean±SD)
Old (year)	35 ± 4,2
Height (cm)	153,65 ± 3,6
Weight (kg)	59,5 ± 3,98
IMT	25,4

Table 2: Results of weight data analysis

	N	Pre-test	Post-test
Weight (Kg)	20	59,5 ± 3,98	58 ± 2,79*

*) $p < 0.05$ significantly different body weight between *pre test* and *post test*.

Based on table 2, the average numbers of body weight were 59.5 ± 3.98 for the pre-test and 58 ± 2.79 for the post-test. After being tested using the t-test, it can be said to have a significant relationship.

4 DISCUSSION

From the results of statistical calculations using the t-test, the findings showed that there were significant differences between before and after being given low impact aerobic exercise treatment. In conclusion, it can be said that low impact aerobic exercise has a significant influence on weight loss for the subjects. Although the quantity is not maximal, but there is a significant decrease. These findings is in line with the research conducted by (Wu, Tu, Hsu, and Tsao, 2016) that low impact aerobic exercise can significantly decrease a percentage of body fat.

After doing routine activities, a person's weight will decrease because doing aerobics is a good way to burn calories and fat. Many muscles are mobilized from the top and bottom of the body. The more muscle you exert, the more calories you burn (Lynne Brick, 2001).

It can be said that there is a relationship between aerobic exercise and weight. If someone does aerobic exercise regularly, the person will experience weight loss and will be free from disease. Finally, their quality of life will be better. This opinion is supported by (Brick, 2002), saying that aerobic exercise is one of the best ways to reduce one's weight, to develop muscle health, and to improve a better quality of life. The same thing was conveyed by (Denise, 2008), that 4 weeks of functional trainings would result in increased functional levels in older adults.

In addition, according to (Kurniato, 2015) to be able to deal with old age, to enjoy their lives, and stay fit in terms of both health and fitness, the elderly must do regular exercise activities, practice a healthy lifestyle, rest, do not smoke and have a routine checkup. One effort to achieve health is doing exercises. In order to be able to obtain a healthy body, one must routinely do such activities. Exercise regularly is an effective and safe alternative to improve or to maintain fitness and health if it is done correctly.

5 CONCLUSION

From the results of this study, it can be concluded that low impact aerobic exercise can reduce women's weight. Every housewife should routinely do gymnastics at least 3 times a week, and has a balanced diet that contains a lot of nonfat protein, so that the body weight is maintained on the BMI or ideal body weight of an adult.

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