



Influence of Eight-Week Aerobic Physical Activity on Body Fat Percent in Non-Athlete Girl Students

KEYWORDS

Aerobic physical activity, body fat percent- non-athlete

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ABSTRACT

The aim of this was study the effect aerobic activity on body fat percent in non-athlete girl students. So, among 50 non athlete volunteer students between 18-25- years old, 20 Students who were all healthy selected. and their fat under-skin in these regions were measured by Caliper and then with the use of table of estimating the fat percentage based on age and the amount of under-skin fat in above mentioned three regions excerpted from "Raven", the fat percentage of the group was determine. Training consists of 45 minutes aerobic activity (% 70- % 80 heart rate reserves) three times a week. Body fat percent were obtained before and after the 8-week training period. The data was analysis using t-test and we used % 99 probability levels for analysis. This study revealed that localized aerobic activities have been effectual in reducing the fat percent age, and there is a significant difference between average fat percent of objects of exercises group before and after exercises.

Introduction

Physical activities are regarded as one of the most important necessities of human life especially urban communities which lack the necessary physical motions in various affairs of daily life [1].

If the life is planned on the basis of physical activities take a great part of human life necessity of engagement in a systematic weekly or monthly exercising program never becomes tangible; as nowadays this fact is clearly noticeable in rural communities [3].

However the absence of adequate physical activities and improper nutrition in urban communities totally leads to development of some problems in people such as cardiovascular disease and overweight disease which so called "fatness" [2].

In this study the terms "Overweight" and "fatness" were used to refer to the excessive under skin fat supplies; Totally if body during metabolism through physical activities cannot drive these existing fat into energy production circle some of them would be accumulated in under skin layers mostly abdomen, leprous and subscale pillories [3].

Also study accomplished by Sardar Mohamed in 2009 reveals that excess fat reduces the endurance readiness, alleviates the capability of performing activities which demand rapid movement, and is a restrictive factor for movements of joints [5].

Hence besides the benefits of modern exercising science reducing extra fat has always been regarded by the athlete and non-athlete people and still is so. Further, some people due to their physical status are not able to reduce fat through popular and typical exercising methods. Moreover, sometimes the percent of fat in the body is referred to as a prognostic parameter for cardiovascular serious factors, therefore any research in this area and discovering method which can help effectively various athletic activities especially aerobic exercising method may aids. Many people in reducing excess fat of the body and provide us with effectual information about the effects activity on the changes on the fat percent.

Material and methods

Statistical population of this study comprised 18-25 years old and average weight 68_+10kg non-athlete girl students of (Dr. Subhash B.P. ED College Junagadh. Saurashtra University) to do this, among 50 volunteer, 20 healthful subjects who have had no surgery in the abdomen lap, were selected. The under-skin fat in these areas was measured. Then following

"Raven" from, we used the table of stinting the fat percent based on age measure the percent of fat.

In this study the subjects attended in exercising place for 8 weeks and each week composed of three 45 minutes session containing 10 minutes for general warm up, about 30 minutes for individual exercises, and 5 minutes for recovery.

Every session's individual exercises consisted on the Treadmill began with the pre-specific intensity for the subjects with their running on the Treadmill at three eight-minute-long turns with the calculated heart rate at each turn. the intensity of the task was conducted from "highly light" "light" to "intense" "highly intense". Intervening every two activity turns, the subjects had five-to-seven-minute-long active rest on fixed (stationary) bicycles. At the end of every training session, the subjects recovery activities helping them

To analysis the data obtained from pretest and post test we used correlative T-test with probability ratio of 1%. For statistical analysis EXCELL and SPSS software's were used.

Results:

The effects of aerobic activity on fat under-skin in these areas and fat percent of subjects are shown in table following.

Table 1: Correlative t-test results in subject's aerobic activity group.

Parameter	Pre-test Mean	Post-test Mean	t	Probability ratio
Subscapularis fat under-skin	15.76	12.13	-3.6819	0.0069*
Abdomen fat under-skin	34.45	31.76	-5.5257	0.0001*
Lap fat under-skin	33.33	31.85	-5.6168	0.0002*
Sum of fat in three areas	83.54	75.74	-6.1566	0.0001*
Fat percent	18.55	16.33	-3.7241	0.0034*

*: It means that there is a significant difference between pre-test and post -test results in that parameter.

Discussion:

This study previous have shown that endurance physical activities have been effectual in reducing body fat percent. The present study revealed that aerobic physical activity have been effectual in reducing the fat thickness of subjects, subscale pulorisand there is a significant difference between average the thickness of fat in subjects subscale pillories before and after exercises [Figure 1]. These findings correspond with findings of Sadara, Skinner, Verne, Gilmore and Ramallah [3,

11,14,12,15] This study also revealed that aerobic physical activity have been effectual in reducing the abdomen fat thickness of subjects and there is a significant difference between abdomen fat subjects in exercising group before and after exercises.

These findings correspond with finding of Nikzad, Sardar Skinner, Wilmore, and Manini [4, 3, 11, 12, and 13]. But conflict with Hunter, study outcomes probably this conflict is due to the low fat percent of subjects of their study [1]

According to the finding of this study aerobic physical activity have been effectual in reducing the lap fat thickness of subjects and there is a significant difference between lap fat thickness of subjects in exercising group before and after exercises. These findings correspond with finding of Sardar, Habibzadeh, Nikzad, Skinner, and Wilmore [3, 2, 4, 11, and 12]

But they conflict with finding of Riahi and Hunter. This probably due to the generality of exercises and about stale's study, this conflict maybe due to the potency nature of exercises presented in it [3, 1]

Researchers contribute this difference to the spattering of some hormones from adrenal which lead to decomposition of extra fat or the body. One of the most important hormones of this kind is "Epinephrine" hormone [11].

The outcomes of previous studies have shown that endurance activities have been effectual in reducing the fat percent.

The present study revealed that there insignificant difference between average fat percent of subjects of exercising group before and after exercises. This corresponds with findings of Nikzad, Habibzade, skiner, Verney, khan [3, 2, 11, 14, and 6].

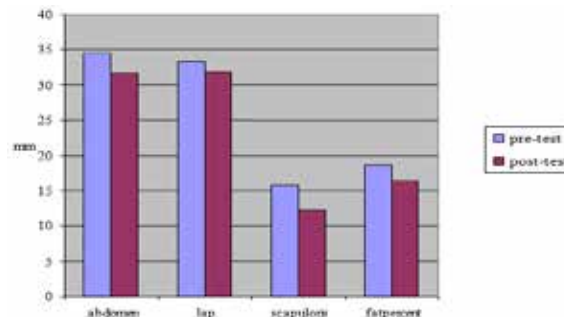


Fig. 1: The comparison of the average reduction of under skin fat of areas and fat percent in Pre- and Post-test of aerobic exercising.

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