



International Journal of Physical Education, Sports and Health

P-ISSN: 2394-1685
E-ISSN: 2394-1693
IJPESH 2015; 1(3): 46-49
© 2015 IJPESH
www.kheljournal.com
Received: 07-11-2014
Accepted: 06-12-2014

Kum. Kusuma C. Shamanur
Research Scholar,
DOS in Physical Education and
Sports Sciences

Rajkumar P. Malipatil
Asst Prof,
DOS in Physical Education and
Sports Sciences, Karnataka State
Women's University Vijayapur

Impact of aerobic exercise on selected haematological variables among College women

Kum. Kusuma C. Shamanur, Rajkumar P. Malipatil

Abstract

Background: The purpose of the study was to examine the effect of aerobic exercise training on haematological variables among college women.

Methods: For the present study 50 women from Manyata PU College Harihara.

Were selected at random and their age ranged from 17 to 19 years. For the present study pre-test, post-test randomized group design which consists of the control group and the experimental group was used. The subjects were randomly assigned to two equal groups of fifty each and named as Group 'A' and Group 'B'. Group 'A' underwent aerobic exercise training and Group 'B' underwent no training. The data was collected before and after eight weeks of training. The data was analyzed by applying Analysis of t-volume technique to find out the effect of aerobic exercise training programme. The level of significance was set at .000.

Result: The findings of the present study have strongly indicates that aerobic exercise training of eight weeks has a significant effect on *selected* haematological variables i.e., RBC and Haemoglobin content of college women. Hence the hypothesis earlier set that aerobic exercise training programme would have been significant effect on selected aerobic exercise training variables in light of the same the hypothesis is accepted.

Conclusion: Significant effect of aerobic exercise training was found on RBC and Haemoglobin.

Keywords: Haematological variables and Aerobic exercise.

1. Introduction

Aerobic exercise is physical exercise of relatively low intensity that depends primarily on the aerobic energy-generating process. Aerobic literally means "living in air", and refers to the use of oxygen to adequately meet energy demands during exercise via aerobic metabolism. Generally, light-to-moderate intensity activities that are sufficiently supported by aerobic metabolism can be performed for extended periods of time.

Aerobic literally means oxygen referring to the consumption of oxygen by the metabolic system. It involves a little warm up activity at the start and another minimum 20 minutes of exercise. Aerobic exercises are vital in weight loss activities.

Aerobic exercise is the cardiovascular activity that involves prolonged activity of large muscles without stopping. Aerobic exercises burn your fat and keeps your metabolism rate high even after the activity is over. Just after 15 minutes of the exercise your glycogen burns off producing glucose, which then uses oxygen to generate energy by burning fat.

Aerobic activities include cycling, jogging, stair climbing but not golf, basketball or doubles tennis as these activities include pauses and may not contribute much to fat loss. Running at a moderate pace is an aerobic activity while sprinting is not; as it's just an outburst of energy 4 brief moment. Aerobics are best done early in the morning with an empty stomach as it'll help you burning fatter.

This is because your body doesn't need to burn glycogen as overnight, it has already been depleted, or burn what you have just eaten. With an empty stomach you start burning fat right away. Go through a moderate to intense exercise for 30-45 minutes, 4-5 days a week and be regular with that. Regularity will help you get leaner with the exercises whereas any break can weaken your motivation.

Many aerobic exercises are simple and can be done at home. Riding a bike is one of the best activities as it keeps your legs in tone, heartbeat up and burns calories. Rollerblading and jogging are as much effective and inexpensive too.

Correspondence:
Kum. Kusuma C. Shamanur
Research Scholar,
DOS in Physical Education and
Sports Sciences

Or you can just put your iPod with you and just go out for a long walk. Try setting goals for yourself and increase the duration of your exercise each day.

Another easy and fun way is to find some good stairs and walk up and down till you no longer can even walk. Try swimming as it will not only put pressure on your joints and raise your heartbeat but also trim your whole body. Working in your garden can be fun as well as a perfect exercise with mowing the lawn or picking up the weeds.

All these activities are healthy easier to perform and inexpensive. Aerobic exercises are beneficial in so many ways like Strengthening the respiratory muscles, Strengthening and enlarge the heart muscle and improve its pumping, Improving blood circulation and red blood cells, Reducing stress and depression Increasing your stamina and endurance of your muscles, In short it reduces the risk of heart attacks.

Aerobic exercises are a wonderful way to burn your fat and tone your body muscles, leaving you healthy and in a good shape. Finding the perfect Workout Routines [<http://www.workoutroutines.biz>] takes time and effort. These best workout routines is a great place to start if a person is interested in flat abs.

Objective of the Study

The purpose of the study was to investigate the effect of eight weeks of aerobic exercise training programme on selected haematological variables among college women. It was hypothesized that there would have been a significant effect of eight weeks of aerobic exercise training programme on selected haematological variables among college women.

Hypothesis

- It is hypothesised that the impact of aerobic exercise will improve the motor ability, anthropometric and haematological variables among college women.

Procedure and Methodology

For the present study 50 college women from Manyata PU College Harihara. Were selected as subjects at random and their age ranged from 16 to 18 years. For the present study pre test – post test randomized group design which consists of the control group and the experimental group was used. The subjects were randomly assigned to two equal groups of fifty each and named as Group ‘A’ and Group ‘B’. Group ‘A’ underwent aerobic exercise training and Group ‘B’ underwent no training. The data was collected before and after eight weeks of training. The data was analyzed by applying Analysis of t-volume technique to find out the effect of aerobic exercise training programme on selected haematological variables among college women. The level of significance was set at 0.05.

Results and Discussions on Findings

The findings pertaining to analysis of co-variance between the experimental group and

The control group on selected haematological variables among college women for pre-post test, respectively have been presented in table No.1 to 4

Table 1: t-volume between Experimental Group on RBC Pre, Post test.

| Sl. No | Type of test | Mean | S. D | Df | t-value | P | Rem |
|--------|--------------|--------|--------|----|---------|------|-----|
| 1 | Pre Test | 4.3848 | .47719 | 49 | 6.205 | .000 | S |
| 2 | Post Test | 4.7030 | .53742 | | | | |

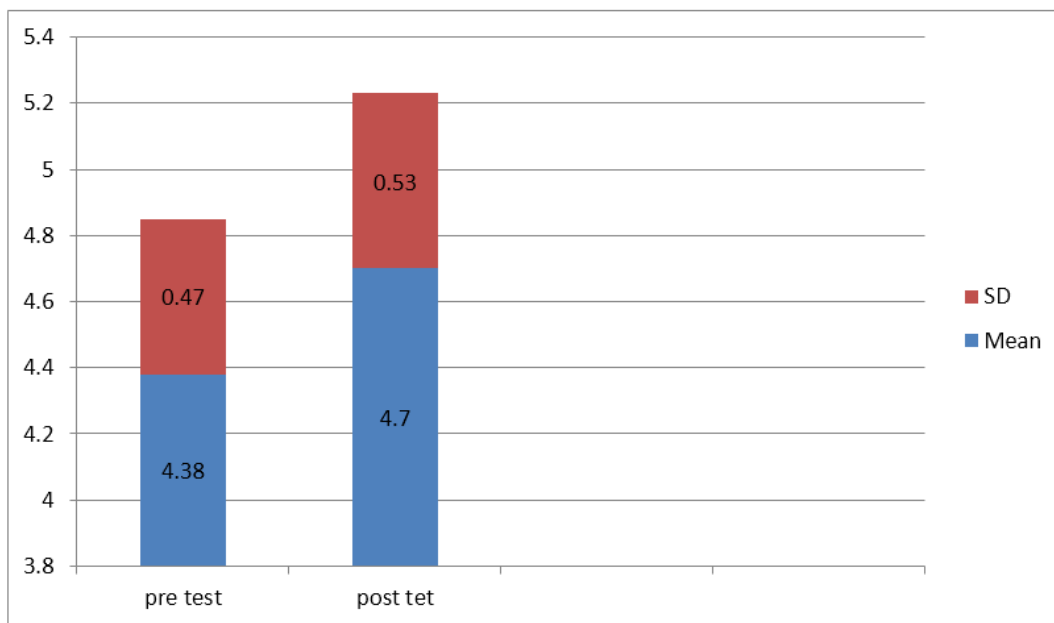


Table number 1. And the graph shows the significance difference of pre test and post test as well mean, Sd and t value. The mean score of pre test 4.38 and post test is 4.7,the standard deviation is 0.47 and post test is 0.53.The variables of this study clearly shows that the effect of aerobic exercise as increased RBC measuring the variable of t value is 6.02.

This indicates the level of significance difference between pre test and post test of subjects.

Table 2: t-volume “between” Control Group on RBC Pre, Post test.

| Sl.No | Type of test | Mean | S. D | Df | t-value | P | Rem |
|-------|--------------|---------|---------|----|---------|------|-----|
| 1 | Pre Test | 11.8028 | 1.04791 | 49 | -2.008 | .050 | NS |
| 2 | Post Test | 11.8698 | .98723 | | | | |

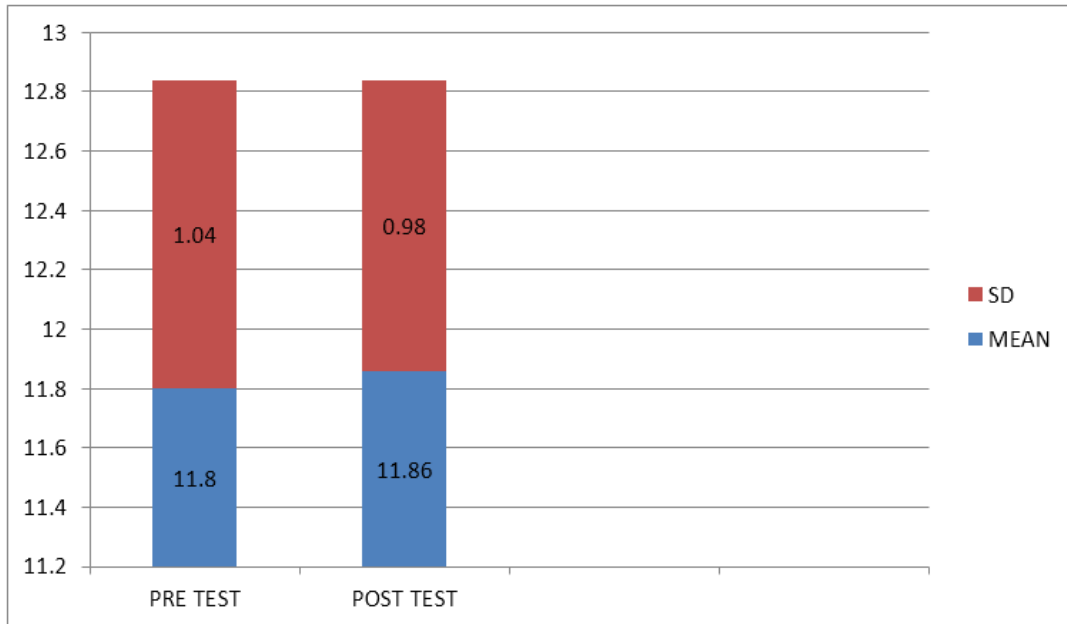


Table number 2 and graph shows the control group of significance difference of pre test and post test as well mean, Sd and t value. The mean score of pre test 11.8 and post test is 11.86. the standard deviation is 1.04 and post test is 0.98. The

variables of this study clearly shows that there is no improvement in RBC measuring the variable of t value is 2.00. This indicates the level of significance difference between pre test and post test of subjects.

Table 3: t-volume in Experimental Group on Haemoglobin of college women for Pre, Post Test

| Sl. No | Type of test | Mean | S. D | Df | t-value | P | Rem |
|--------|--------------|---------|---------|----|---------|------|-----|
| 1 | Pre Test | 11.4558 | 1.08260 | 49 | 11.888 | .000 | S |
| 2 | Post Test | 11.8198 | 1.03975 | | | | |

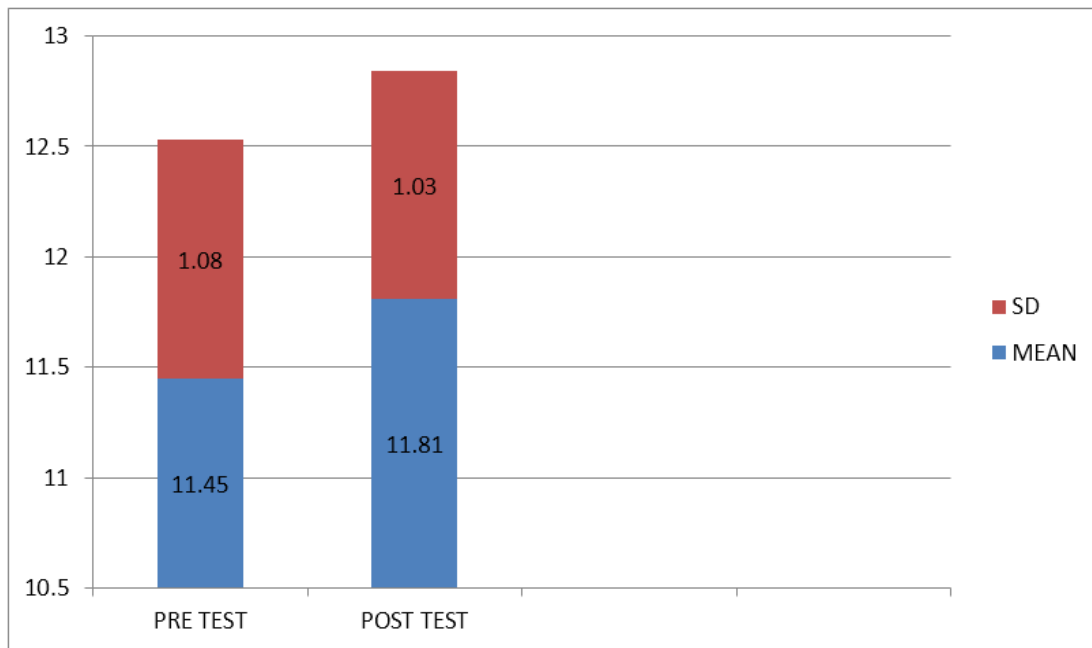


Table number 3 and graph shows the significance difference in Haemoglobin of pre test and post test as well mean, Sd and t value. The mean score of pre test 11.45 and post test is 11.81 the standard deviation is 1.08 and post test is 1.03. The

variables of this study clearly shows that the effect of aerobic exercise as increased Haemoglobin measuring the variable of t value is 11.88. This indicates the level of significance difference between pre test and post test of subjects.

Table 4: t-volume in control Group on Haemoglobin of college women for Pre, Post Test

| Sl. No | Type of test | Mean | S. D | Df | t-value | P | Rem |
|--------|--------------|---------|---------|----|---------|------|-----|
| 1 | Pre Test | 11.8028 | 1.04791 | 49 | -2.008 | .050 | NS |
| 2 | Post Test | 11.8698 | .98723 | | | | |

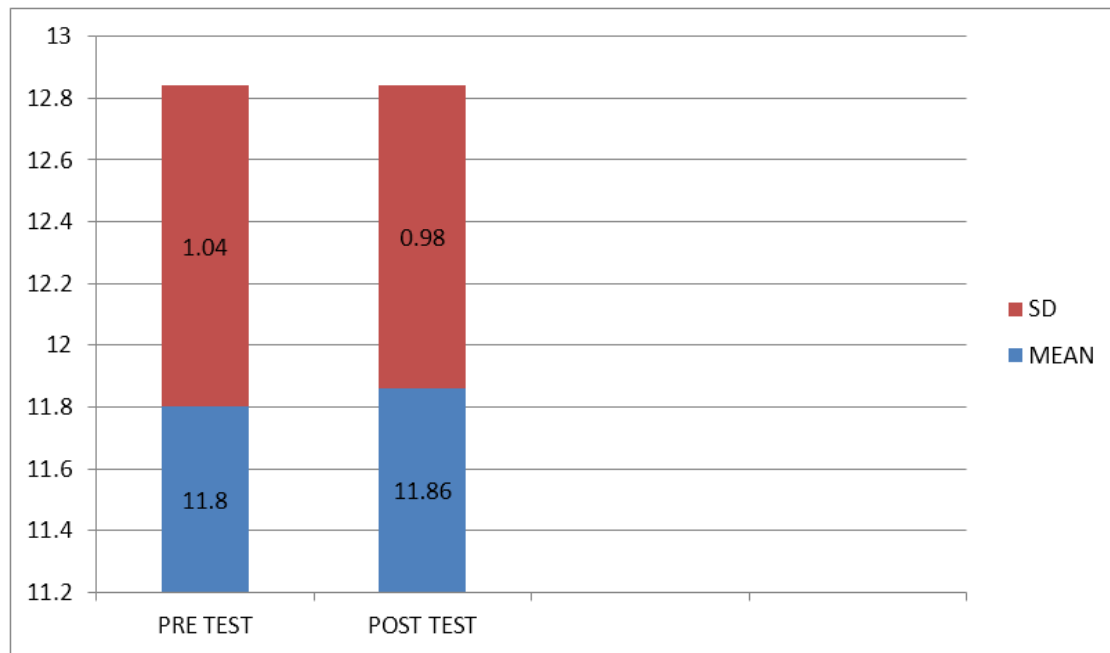


Table number 4 and graph shows the control group of significance difference in Haemoglobin in control group of pre test and post test as well mean, Sd and t value. The mean score of pre test 11.8 and post test is 11.86 the standard deviation is 1.04 and post test is 0.98. The variables of this study clearly shows that there is no improvement in Haemoglobin level measuring the variable of t value is 2.008. This indicates the level of significance difference between pre test and post test of subjects.

Test has been found significantly higher in the experimental group in comparison to control Group. This is possible because aerobic exercise is currently one of the most commonly Practised adult fitness activities which directly contribute to enhancement in their RBC and Haemoglobin and due to a regular training programme of aerobic exercise training which may also bring sudden spurt in haematological variables in college women. The findings of the present study have strongly indicates that aerobic exercise training of eight weeks have significant effect on selected haematological variables i.e., RBC and Haemoglobin college women. Hence the hypothesis earlier set that aerobic exercise training programme would have been significant effect on selected haematological variables in light of the same the hypothesis was accepted.

Conclusions

On the basis of findings and within the limitations of the study the following conclusions were drawn: Significant effect of aerobic exercise training was found on RBC and Haemoglobin.

References

1. Barrow MH, McGhee R. A practical approach to measurement in physical education. Philadelphia: Lea and Febiger, Edition-3rd, 1979.
2. Jovanovic M, Sporis G, Omrcen D, Fiorentini F. Effects of speed, agility, quickness training method on power performance in elite ball badminton players. J Strength Cond Res 25(5):1285-92.
3. Kalidasan R, Suresh KM. ABCs of Ball Badminton. Karaikudi: Vinsi Publications, 2009.
4. Mohan R. Research methods in education. New Delhi: Neelkamal Publications Pvt. Ltd, 2003.
5. Srivastva G. Advanced research methodology. New Delhi: Radha Publications, 1994, 219-