



EFFECT OF EXERCISE BIKE TRAINING PROGRAMME ON CARDIOVASCULAR ENDURANCE OF COLLEGE BOYS

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Abstract:The purpose of the study has to find out the effect of exercise bike training programme on the cardio-vascular endurance of college boys. The present study was the descriptive survey method. Total number of 20 boys students of degree boys college Anantnag (J&K) was selected as the sample for the study in the session 2015-2016 and they engaged in the exercise bike training programs conducted three times per week for duration of three month during the same session 2015-2016. It was hypothesized that there will be significant changes in the cardio-vascular endurance of college boys if they practice exercise bike training. A total 20 subjects was divided into two groups one group was the experimental group and the other control group. All the subjects were fit and clinically healthy. The investigation was carried out in three phase, the first test was pre test phase, to measure the cardio-vascular endurance. The Harvard step test was administered to the subjects and fitness index was calculated. In the second phase, experimental treatment was given three months, one session of an exercise bike training programme was conducted daily three times a week excluding Saturday and Sunday. One session of an exercise bike training programme constituted of 45 minutes per subject. The first 15 minutes of the session was given for warming up exercises like running and jogging and the next 30 minutes exercise bike training program was given to the subjects. The final fifteen minutes was given to the subjects for cooling down. In the final phase post-test measurement were taken, all the subjects of the group were evaluated for cardio-vascular endurance. Mean, standard deviation were the tools of statistical analysis. Comparative analysis was done by finding out the 't' ratio. The level of significance was kept at 0.05 level. The initial and final mean value of cardio-vascular endurance was measured with the help of Harvard step test of control group and experimental group of pre and post test are (77.51,78.45) and experimental group (76.50,69.35) respectively. Experimental group was found statistically significant. Thus, it can be concluded that there was an effect of exercise bike training program on cardiovascular endurance.

Keywords:Bike exercise programme, College boy's

Introduction:

The present investigation was conducted to evaluate and study the effect of exercise bike training program on cardio-vascular endurance. The researcher was very much interested to study the effect of exercise bike training program on cardiovascular endurance. Bishop D. and Other (1999) studied the "Effects of Strength Training on Endurance performance and muscle characteristics of female cyclist" Twenty-one endurance trained female cyclist aged 18-42 yr were randomly assigned to either a resistance training (RT: N-14) or a control group (CON, N-7) Resistance training (2A-A-wk-1) consisted of five sets to failure (2-8 RM) of Parallel squats for 12 wk. before and immediately after the resistance training period all subjects completed an incremental cycle test to allow determination of both their lactate threshold (L.T) and peak oxygen consumption V (dot)

O₂. In addition endurance performance was assured by average power output during a 1-h cycle test (OHT) and leg strength was measured by recording the subjects one repetition maximum (1 RM concentric squat. Before and after the 12-wk training program, resting muscle was sampled by needle biopsy from m. vastus lateralis and analyzed for fiber type diameter, fiber type percentage, and the activities of 2-oxoglutarate dehydrogenase and phosphofructokinase. After the resistance training program there was a significant increase in 1 RM concentric squat strength for RT (35.9%) but not for CON (3.7%) (P<0.005) However there were NO significant changes in OHT performance. LT. V (dot) O₂. Muscle fiber characteristics, or enzyme activities in either group (P>0.005). the present study suggests that increased leg strength does not improve cycle endurance

performance in endurance-trained, female cyclists.

Cardio-vascular endurance

It is the ability of heart and lungs to take in and to transport adequate amount of oxygen to the working muscles for activities that involves large muscle masses to be performed over long period of time

Exercise Bicycle

A fitness device having a seat, handlebars and pedals with adjustable resistance, used stimulate pedaling a bicycle, also called stationary bicycle.

Exercise bike

An exercise bike or stationary bike is a bicycle that site on a stand and is fixed in place basic stationary bikes have a seat, pedals and spinning devices, typically utilizing wheels or a chain, mounted on a stand. More sophisticated models can help target various muscle groups adjusting the terrain, level and pressure of the ride. A cycloergometer, cycle ergo-meter or bicycle ergo meter is a stationary bicycle with an oxyometer to measure the work done by the exercise.

Results:

Table-1 showing the score of cardiovascular endurance of the control group of college boys pre and post test.

Control Group Group	Mean	Mean Difference	Standard Error	't' Ratio
Pre Test	77.51	0.94	1.48	0.63
Post Test	78.45			

In the above table no.1, the mean value of cardio-vascular endurance with the help of Harvard step test of control group of pre and post test are 77.51 and 78.45 respectively. The resultant mean difference of pre and post test was 0.94. Control group was not found statistically significant. The value of 't' ratio was 0.63. This value was not significant at 0.05 level because the value of 't' ratio was smaller than 2.09.

To be significant at 0.05 level, the value of 't' ratio should be greater than 2.09.

Table-2 Showing the score of cardio-vascular endurance of the experimental group of college boys pre and post test.

Experimental Group	Mean	Mean Difference	Standard Error	't' Ratio
Pre Test	76.50	7.15	2.17	3.29
Post Test	69.35			

In the above table no. 2, the mean value of cardio-vascular endurance was measured with the help of Harvard step test of experimental group of pre and post test are 76.50 and 69.35 respectively. The mean difference of pre and post test were 7.15. Experiment group was found statistically significant. The value of 't' ratio was 3.29; this value was significant at 0.05 level because the value of 't' ratio was greater than 2.09.

Thus, this showed that there was an effect of exercise bike training program on cardio-vascular endurance.

Summary:

The present investigation was conducted by the research scholar in order to evaluate and study the effect of exercise bike training program on cardio-vascular endurance of college boys. It was hypothesized by the research scholar that exercise bike training program will bring about significant difference in the cardio-vascular endurance of college boys. The study was conducted on 20 subjects who were randomly selected from degree college boys Anantnag (J&K) during the session 2015-16 A total 20 subjects were divided into two groups. One group was the experimental group and the other control group. All the subjects were fit and clinically healthy. To measure the cardio-vascular endurance, Harvard step test was administered to the subjects.

Conclusion:

Exercise Bike Training Program showed beneficial results to the Physique of the college boys. There activities sustain rigorous efforts to recover and resist fatigue which was a result of their increased cardio-vascular endurance. The cardio-vascular endurance of the control group should no significant changes on post test measurements. Thus, it can be concluded that the college boys who never practice

bike exercises cannot raise there cardio-vascular endurance. The cardio-vascular endurance of the experimental group showed significant changes on the post test measurement. Thus, it can be concluded that exercise bike training program enhance the cardio-vascular endurance of the college boys.

Reference:

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