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Effects of 12-week weight training on resting pulse rate variables of secondary school girls

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Abstract

Weight training is a very important aspect of sports training or physical body training and everybody is aware of their effects on the body's muscles and tendons. Many researchers and analysts also believe that weight training with the right cardio exercises is known to reduce and control hypertension and supports the cardio vascular health functions of the body. The greatest benefit of weight training on the body is the creation of lean body mass, which helps burning calories. This lean body mass is normally formed out of body fat. Weight training also improves the body's sugar usage and thus helps maintain the blood sugar levels. Weight training is also responsible from maintaining and reducing the blood pressure levels of the body, thus further helping to reduce a person's hypertensions. Studies have further shown that weight training if done accurately and periodically increases stamina, cardio vascular strength and endurance levels. Weight training also greatly reduces the risk of stroke and cardio vascular heart diseases. Weight training has to be performed in the presence of trained professionals and only with certified equipment. Weight training seems to be one of the better means of increasing both overall body strength and the development of isolated muscle groups. (Booth E.G, 1957) According to Cambell, (1962) weight training produces significantly greater increase in physical fitness than does a normal conditioning programme alone. In fact, the ideal Weight training program for many children need not involve Weight at all. "The body doesn't know the difference between Weight machine, a medicine ball, an elastic band and your own body Weight" Dr feign Baum said. In his own work with local schools, he often leads physical education class worm-ups that involve passing a medicine ball(usually a "1 kilo-gram ball for elementary school age children" and behavior ones for teenagers) or holding a broomstick to teach lunges safely.

Keywords: Introduction, weight training, resting pulse rate, conclusion

Introduction

Weight training is a common type of strength training for developing the strength and size of skeletal muscles. It uses the weight force of gravity (in the form weight bars, dumbbells or weight stacks) to oppose the force generated by muscles throw concentric or eccentric concentration. Weight training uses a variety of specialized equipment to target specific muscle groups and types of movement. Weight training is the best means for improving strength and endurance. All type of weight training does not produce equal amount of muscle hypotrophy. Weight training with a certain type of load leads to best results. The organization of strength training basically comprises of two things. (a) Methods of arrangements of strength exercises and (b) Loading procedure during strength exercise. Weight training is taking fitness enthusiasts by storm, and it has even become attractive to thousands who once called themselves couch potatoes. Weight training is an activity that you can accomplish in short period, yet it can make dramatic changes in how your body looks and feels.

Material and Methods Subjects

The present study was done to know the effect of weight training on resting pulse rate in healthy volunteers above the age of 12-16 years. Fifty purposively selected girls resting pulse rate from Government High School Rajkallhalli, District Kolar, Karnataska. Subjects were assigned into two groups: A (experimental: N-25) and B (control: N-25). All subjects, after having been informed about the objective and protocol of the study, gave their written consents. The subjects from Group A were subjected to a 12-week weight training program. The weight training group will train on the different types of weight training exercises, running

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variations and jumping exercises for a period of twelve weeks, three days in a week. The duration and intensity of training increased gradually after every two weeks. Weight training programmed will select for intensity 60% of their 1RM was given in the first two weeks and it increased to 70%. After four weeks it increased to 75% and last two weeks it increased to 80% of their 1RM. Duration: 90 minutes Recovery: 4-6 mins. The weight training is given between the time period 06.30AM to 07.30AM every day for 3 days a week with warming up, experimental training and warming down.

This group consisted of 50 subjects. Three training sessions in a week for a period of twelve weeks were given. This group was directed to do 10 repetitions of each exercise and was also asked to do 3 sets in the beginning. The load was increased by increasing the repetitions or sets after each week according to the ability of an individual. They were asked to do the exercises in pairs when one subject was doing exercises, the other subject was asked to help him. After completing one set, the next person was asked to do the same exercises. The subjects were given equal amount of time to relax after each exercise.

This programme consisted of the following eight exercises.

- Rowing
- Leg press

- Military press
- Dumbbell fly
- Good morning exercises
- Full Squat
- Half squat
- Seated cable rows

Based on the response of the subjects in the pilot study, training programme to ensure the suitability, the intensity and duration of exercise were scheduled. Further the pilot study helped to know the subjects' capacity, to know the satisfactory effects of exercises and to know the difficulty of conducting training programme and to set a clear understanding about the duration of time which was required for conducting the test. Thus, training schedules for group I and group II were constructed. However the individual differences were not considered. This enabled the investigator to adapt suitable training schedule for this study

Analysis and Interpretation of Data

The Effect of 12 Weeks Weight training Exercises on Resting pulse rate Physiological variables of secondary school girls and training was imparted to Experimental Group and Control Group Performance was recorded at Pretest and Post-test and Interpretation of data has done as follows.

Table 1: Shows Mean, SD and t-value of Resting pulse rate Between Experimental Group and Control Group Pre-test and Post-test

variables	Group	Test	Mean	SD	t-value
Resting pulse rate	Experimental Group	Pre	77.4	7.4267	0.0098
		post	71.56	7.4166	
	Control Group	pre	80.6	14.728	0.6978
		post	79.32	14.0526	

The level of significant is 0.05, Table value is 0.009

The Experiment Group showing the significant difference of the Pre-test and Post-test as well Mean, Standard Deviation and t- value. The mean Score of Pre-test 77.4, Post-test 71.56, Standard Deviation Pre-test 7.42, Post-test 7.41, The Variables of the study clearly shows that the weight training decreases the Resting pulse rate Measure By the number of beats. The t- value is 0.009, this indicate the level of significant difference between Pre-test and Post-test of the Subject. The Control Group showing there is no significant difference of the Pre-test and Post-test as well Mean, Standard Deviation and t- value. The mean Score of Pre-test 80.6, Post-test 79.32, Standard Deviation Pre-test.14.7, Post-test.14.05 The Variables of the study clearly shows that the Weight training decrease the Resting pulse rate dose not play any role for Measure by the number of beats. The t- value is -0.69 this indicate there is no significant difference between Pre-test and Post-test of the Subject.

Conclusion

The purpose of this study was to examine the effect of weight training improve the secondary School girls. Pre-test as been conducted then the twelve weeks weight training program organized to the high school girls, after the 12 weeks training post test conducted the researcher found that the effect of resting pulse rate level the post-test result indicates significant decrease in the resting pulse rate.

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