

Effect of moderate intensity aerobic training on selected strength parameters

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ABSTRACT

The purpose of the study was to find out the effect of moderate intensity aerobic training on selected strength parameter such as explosive strength and strength endurance. To achieve this purpose of the study, thirty men students (age between 19 to 23 yrs.) studying in department of Physical Education, Annamalai University, Tamil Nadu were selected randomly and divided into two equal groups, group I moderate intensity aerobic training group and group II control group. The duration of the experimental period 14 weeks. Pre test before commencement of training and post test after the training were conducted. Data were collected on explosive strength and strength endurance. It was assessed by vertical jump and bend knee sit ups. The difference between pre and post test scores of the two groups were statistically analysed by using 'analysis of covariance' (ANCOVA) and the results proved that there was significant improvement on explosive strength, strength endurance between the groups ($P < 0.05$) but there was no significant difference among the groups. The results of the study indicate that the moderate intensity aerobic training could be successfully implemented by runners for improving their explosive strength and strength endurance.

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Physical fitness is one of the components of the total fitness of individual, which also includes mental, social and emotional fitness. Physical activity is an important and essential element in human health and well-being and its importance has achieved widespread acceptance by the public, professional's organization and medical community. Training is a systematic process of repetitive progressive exercise or work, involving the learning process and acclimatization. Sport training is a long, continuous and systematic process of physical and mental hard work, to attain high level performance in competitions of various levels by making the best use of the principles derived from other sports sciences. Today, sports training are mostly based upon the competitive motive. Each nation is trying to achieve top level performance and to win laurels on international competitions.

Sports training aims at improving the performance of sport persons. The sports performance depends on several factors like constitution, condition, technique, tactics, co-ordination and personality.

Sports trainings are the basic preparation of the sportsmen for better performance through physical exercise. It is based on scientific principles of aiming at education, performance and enhancement. Sports activities consist of motor movement and action and their success depend to a great extent on how correctly they

are performed. Techniques of training and improvement of tactical efficiencies play a vital role in training process.

The workout involves doing a group of exercises together, with little to no rest period before moving on to the next group of exercises. One group, or circuit, can contain anywhere from six to 10 exercises. This type of workout varies in intensity depending on your fitness level. Your fitness regain can benefit significantly when you incorporate training.

METHODOLOGY

The purpose of the study was to find out the effect of moderate intensity aerobic training on selected strength parameter such as explosive strength and strength endurance. For the study, fifteen for moderate intensity aerobic training group and fifteen for control group, were selected as subjects, who were studying in Department of Physical Education and Sports Sciences, Annamalai University, Tamil Nadu, India. The selected criterion variables such as explosive strength and strength endurance were tested by using vertical jump and bend knee sit-ups test, respectively. The duration of the experimental period was 14 weeks. The age of the subjects was 19 to 23 years. The collected data were analysed statistically by using 'Analysis of Covariance' (ANCOVA) to find out the significant differences, if any. In all the cases 0.05 level of confidence was fixed to test