



A Study Of Effectiveness of Physical Fitness Training Programmes on The Lung Function Of Sedentary Students In Parul University

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KEYWORDS

INTRODUCTION:

Whether an individual is associated with lifestyle diseases or not, lung function is important components of a healthy life-style. There are many benefits of sound lung function: a better functioning of respiratory system and an improved physiological and psychological well-being. The sound lung related benefits are especially important for people associated with lifestyle disorders who are at greater risk on asthma, coronary artery diseases, arteriosclerosis, cerebral vascular disease, renal diseases, ocular disease and other health problems (Armstrong 1991, Maynard 1991). Various authors (Armstrong 1991 and Maynard 1991) have reported that regular exercise has improved the cardio vascular system, decreased some of the risk factors leading to a cardiovascular disease, promoted fat loss, increased muscle mass, increased glucose intake by cells and enhanced well-being of the sedentary students. In other research (Clausen J P 1997) physical fitness was noted to improve cardiovascular fitness and work capacity, while decreasing resting and exercise blood pressure, as well as peripheral vascular resistance. Finally, physical fitness has been shown to decrease the risk of cardiovascular disease and improve total cholesterol and high density lipoprotein levels (Milesis et. al. 1976). Exercise also means total caloric expenditure promotes fat loss, and increases lean body mass (Maynard 1991),

The importance of physical fitness programmers is linked to a higher quality of life as well as academic achievements.

It is well- documented that regular physical activity in childhood and adolescence improve strength & endurance, health build, healthy bones & muscles, hips control weights, reduce anxiety and stress, increases self- esteem and may improve cardio reparatory function. Physical fitness is recognized as an important component of health (Yitzhak 2000) and it may be important for the performance of functional activities and quality of life (Salmon, Owen, Crawford, Bauman, Sallis (2003). Low physical fitness may result in high physical strain during the performance of activities (Bruining et. al. 2007). As a consequence, activity levels may decrease due to fatigue and discomfort, exacerbating low physical fitness.

Participation to physical activities is rapidly decreased specially in the college and university education. Academic education in the universities focuses on the specialization in preferred fields. Sinku (2009) implied that physical education and sports lessons in Parul University. Physical fitness has an important role in the education of new generation in the frame of physical and mental health and now days it is treated as a piece of education in the developed societies and education programmers. The study regarding the physical fitness programmers can be placed in a special order in the subject of physical education, Sports sciences and medical sciences. In this context, fitness program applications that are covered by the study in the field of physical education departments have an important role. Therefore ,this study endeavors to examine the effects of health related physical fitness programmers that are covered in the academic programmed of physical education department

on the resting heart rate, reparatory rate, vital capacity and breath holding capacity.

MATERIALS AND METHODS

Subjects:

Twenty sedentary students from various colleges of Parul University Borada, Gujarat voluntary to participate in the physical fitness training programmers, Exclusion criteria were the presence of chronic medical conditions such as asthma, heart disease or any other condition that would put the subjects at risk when performing the experimental tests.

The subjects were free of smoking, alcohol and caffeine consumption, antioxidant supplementation and drugs during the programmers.

They completed an informed consent document to participate in the study. The age, height, weight, vital capacity, of all subjects was measured in physical education department laboratory. All 20 acted as experimental group for physical fitness training programmers with no control groups.

APPLIED TRAINING PROGRAMMER

A training programmer was planned for 12 weeks, 5 days a week and 60 minutes a day. Exercise that use large muscles groups that can be maintained continuously and are aerobic in nature. These exercises include walking, jogging, climbing, jumping row and cross country. There was training programmers in the academic schedule of physical education department. The exercise session should consist of the following procedure: Warm - up period will be approximately 10 min., this was combine callisthenic – type stretching, exercise and progressive aerobic activity. However, cool down period was 5 to 10 min.

PARAMETERS MEASUREMENTS

The lung function was measured by using Vital capacity through pyrometer in liters and the pyrometer was placed on such a height that all subjects could tested in standing position. The inner dial of the pyrometer was set on zero mark of the beginning of the test. The subject was requested to take the breath before starting the test and after exhalation the pyrometer was put in the subject's mouth, taking precaution that no air escapes through the edges of the mouth piece. The students exhaled slowly and steadily while bending forward slightly until the maximal volume of air could be exhaled without taking in second breath. The students were instructed to blow out air only through the mouth not through the nose. Each student was provided a trail before the final tests.

STATISTICAL ANALYSIS

Statistical technique used for analyzing the collected data in the study wasn't value. All the values obtained before and after performing 'Health related physical fitness programmer'. The Student paired t' test was used to compare parameters within groups. P value of less than 0.05 indicates a significant difference.

RESULTS

The mean age of these students were 20.3 + 2.66, height were 172.33 + 5.99 cm. the weight were 69.29 + 4.01 Kg. Tests at the beginning of 2009-2010 academic year in this study, vital capacity was taken from the sedentary students,

The data obtained before and after health- related fitness programme with respect to vital capacity were analyzed by t statistics are presented in. Table 1 depicts that mean of vital capacity before fitness programme was 2150 & after fitness training programme was 2931. The t statistics show that there was significant increase in vital capacity after physical fitness training programme.

Table 1
Statistical information of before and after fitness training programmer with respect to vital capacity among sedentary students

Stages	No.	Means	S.D.	t-values
Before fitness Programmes	20	2150	431	4.54*
After fitness Programmes	20	2931	637	

CONCLUSIONS:

It is found that the physical fitness training programme in the physical education schedule has beneficial effects in on the improvement of lung function of sedentary students besides, it may be also concluded that the results of the present study indicate that trainees get experience in their occupation, be happier and this is important to improve their knowledge owing to communicating mutually. In this perceptive, physical fitness makes education more active and effective in physical education colleges that educate students in movement basis.

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