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**EFFECT FIVE WEEKS OF PHYSICAL TRAINING ON PHYSICAL FITNESS IN
ELEMENTARY STUDENTS**

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ABSTRACT

Because of the complications associated with obesity each year, many financial and social costs like health care, disability, disability and premature death and reduced productivity imposes on society. Thus, careful assessment of obesity in different populations based on existing standards in each community can identify, effective obesity treatment and prevention of cardiovascular endurance and reduce the costs of these factors. Physical fitness is very important in the long-term activities. This study aimed to evaluate the effect of five weeks of physical education classes on fitness and movement were primary school students. The subjects, 145 primary school students in Kerman. The cluster of 3 schools were selected from the population. Cardiovascular endurance, flexibility, muscular strength, muscular power, speed and agility of the subjects before and after 5 weeks of physical education classes measured. Information collected by SPSS software and descriptive and inferential statistics (paired t-test) were analyzed. The results showed that after five weeks of physical education class's cardiovascular endurance, muscular strength, speed, agility and muscular power, students significantly improved ($P \leq 0.05$). While no significant change in students' muscular flexibility ($P \geq 0.05$). Finally, we can say that physical education classes, an important factor in improving cardiovascular endurance, muscular strength, speed, agility and muscular power of students, but should be flexible in order to have an impact

on muscle training program should be modified class and more and more specialized exercises apply.

Keywords: Physical education, students, speed, flexibility

INTRODUCTION

In the past decades doctors and researchers are increasingly the value of regular physical activity as preventive medicine, especially heart disease, respiratory health conditions and obesity are reliable and valid, according to the findings show a part of the physical practices leisure or employment amounts of premature mortality, particularly from cardiovascular diseases greatly decreased. In addition, physical exercise causes obesity and body fat control and reduced blood pressure to remain in a safe range, the hollow bones in old age prevent delayed onset of weakness caused by aging, bone and joint pain heal and tensions and stress will disappear

(Getchell, 1983). According to the results of the last two decades, most great scholars and researchers, the components of physical fitness are divided into two groups: (1) health-related components related components 2. motor skills (Willgoose, 1984). Awareness on the effects of exercise in improving health and human well-being has a long history. Geshtel (1983) believes that people need fitness programs are two main reasons, firstly exercises and regular

physical activity improves cardio respiratory and muscular efficiency and safety devices, the second fitness human capacity full enjoyment of the blessings of living increases. The Bennett et al (1983) Physical education is said to be part of public education through physical activity and movement as a variety of games, racing, sports, exercise, gymnastics, dancing and similar activities run. Wuest and bucher (2009) have defined physical education as an educational process in which physical activity as a way to help students to acquire the skills, readiness, knowledge and positive attitude towards optimal growth and health used. What underlies all forms of human motor activity of the body's beauty; a beauty not only in the fundamental movements helps us but is also effective in learning sport skills (Vahedi, 2003). Fitness concepts are a broad term and in various documents have been defined in many ways, traditionally, quality and features body in accordance with physical activity, physical fitness is called (Gaeini, 2003). West and butcher (2009) have defined physical education as an educational process in which physical

activity as a way to help students to acquire the skills, readiness, knowledge and positive attitudes for optimal growth and health in use. Binet et al (1983) Physical education is said to be part of public education through physical activity and movement as a variety of games, racing, sports, exercise, gymnastics, dancing and similar activities performed. West and Boucher (2009) have defined physical education as an educational process in which physical activity as a way to help students to acquire the skills, readiness, knowledge and positive attitude towards optimal growth and health is. Health and personal health care provider regarding the biological purposes of education; hence, games, training of health, most of the content of physical education accounts for much of the world. It has been shown that physical education programs related to health, which is run with medium to high intensity, in promoting physical activity in physical education classes in schools have an important positive role (Sepasi, 2005). Body composition, including fat mass and lean mass, which represents health, strength and appearance individuals, and extensive research on body composition to determine the factors affecting health, body composition, indices many have suggested that most of the BMI fat, lean body mass

ratio waist to hip ratio is. Body composition, including fat mass and lean mass, which represents health, strength and appearance individuals, and extensive research on body composition to determine the factors affecting health, body composition, indices Many have suggested that most of the BMI fat, lean body mass ratio Waist to hip ratio is. Research findings have shown (BMI) a good predictor of dangerous levels of fat (VLDL-C) and systolic and diastolic blood pressure in both sexes. Although (BMI) body parts is divided into two parts fat and not fat, but as an indicator body fat, is used to predict disease risk factors associated with obesity (Eftekhari, 2010 and Remezani Nejad, 2010) . In all ages, the impact of modern lifestyle in body composition were observed. The cross-sectional study on 2,729 preschoolers ages 3 to 5 years in between) 1992 and 2008 (conducted by measuring the mass index The body was found that obese children with serious health problems and the limits Their activities are, with age and reduced physical activity, the analysis of muscle mass body fat mass increases (West, 2009). The most important and most visible effects of physical activity reduce the risk of overweight and obesity by reducing the risk of complications and chronic diseases are obesity decreases. Physical activity not only improves cardio

respiratory fitness, but also improves cognitive function and improving mental health as well. Body composition and physical fitness is one of the factors affecting a significant effect on physiological responses to exercise (Gaeini, 2000). One of the most common measurements of peak aerobic power in exercise physiology that person's capacity to use, transfer, and receive oxygen states (Gaeini, 2008). The actual values and the objective of maximum oxygen consumption, especially in the comparison group or people with each other or assessment of the importance of training programs physiological and clinical. Aerobic fitness index, lung function, cardiovascular, hematological components of oxygen delivery, and mechanisms of oxidation of the active muscles there is inversely associated with cardiovascular disease. aerobic capacity tests, are common Cross-sectional studies and long-term to explore the relationship between coronary heart disease and cardiovascular fitness in the persons investigated (Aozlayk, 2006). Anaerobic power and its importance as one of the most important factors for health and beauty and success of athletes in various disciplines have been raised. Some of the sports skills and are in dire need of this factor. This is important in activities that skill should be done in the

shortest time fastest or jumping and weightlifting, javelin, throw away the disc with more speed and more distance in less time do show (Hey, 2001). Freeman (1992) suggests that physical education objectives are in line with the general purpose of education, including the development and prosperity of the physical, mental and emotional students. These objectives would include unique aspects of your child's physical education in different subjects. Considering that physical education is an important part of education, and play a vital role in achieving the goals of public education and a generation is informed and lively. Department of Education is in charge of educating people, especially children, adolescents and young adults; the responsibility for providing for their physical and mental health through the development of physical education in schools is responsible. Hence, the development of physical education programs in schools, the need for basic education and the need for continuing education at all levels is undeniable (Johnsen, 2010). Considering the importance of each of the items listed and that it has the effect of physical education among students has not been Researcher intends to effect five weeks of physical

education classes on physical fitness and motor elementary students check.

History Research

Sepasi H., et al (2005) study to assess the content of physical education in junior high school for girls in Iran. Describing the results showed that physical education teachers in the five variables content of physical education (physical fitness, sporting skills, concepts of cognitive and affective domains) were assessed as moderate.

Research conducted abroad

Sallis et al (1997) in a study to examine the effect of health-related physical education for students in their fourth and fifth top It consisted of seven classes that the result showed that participation In physical education has the potential to 97 percent of elementary school students in terms of preparation and physical health is good. Sturm & Datar (2004) study the effects of physical training on changes in body mass index (BMI) in their elementary school. The results showed that an extra hour of physical education classes primarily in the time allowed for physical education in kindergarten decreased (BMI) girls who were overweight or at risk the risk of overweight. But a significant effect on overweight or at risk of overweight boys or boys with (BMI) was normal. Sallis & et al. (1997) in a study

to investigate the effect of health-related physical education for students in their fourth and fifth top It consisted of seven classes that the result showed that participation in Physical education has the potential to 97 percent of elementary school students in terms of preparation and physical health is good.

This research After selecting the subjects, written informed consent form to be given to cooperation in research and students and families after they showed their willingness to participate in this study, a pre-test to measure variables Related research (weight, height, strength, cardiovascular endurance, flexibility, muscular strength, agility, speed) were measured. The five-week subjects took part in physical education classes and after the end of five weeks, dependent variables were measured again. The study population consisted of all elementary school students in Kerman Girl was in the 2008-2009 school year. The samples include 21 schools and 2,500 students. This study is cluster sampling.

Statistical analysis methods

In this study, after collecting and entering data in the software (SPSS 16), to calculate measures of central tendency and dispersion of descriptive statistics were used. Kolmogorov-Smirnov test for normality of

the data was used. Then, to test hypotheses of statistical t-test and significant level ($p \leq 0.05$)

was used.

RESULTS

Table 1: Mean SD demographic two groups

standard deviation	Average	Number	Statistical Indicators Variable
1/12	10/5	143	Age (years)
5/93	129/84	143	Height (cm)
4/24	31/23	143	Weight (Kg)
2/35	15/83	143	Body mass index (BMI)

Suppose the first five weeks of activity in physical education classes a significant effect on muscle strength elementary students.

Table 2: Compares the shoulder girdle muscles male students in pre-test and post-test

P-value	T	SD	mean	Statistical Indicators Group
0/037	2/13	4/47	17/86	After the tests (horizontal)
		3/28	15/70	Pre-test (Horizontal)

Second assumption: Five weeks of activity in physical education class on cardiovascular endurance elementary students a significant effect

Table 3: Compares the maximal oxygen uptake male students in the pre-test and post-test

P-value	T	SD	mean	Statistical Indicators Group
0/025	2/3	6/88	150/47	Posttest (running 540 m)
		7/80	146/10	Pre-test (running 540 m)

CONCLUSION

According to research done seems to beauty and youth mobility issue is fundamental and vital to ensure the health and wellbeing of the population. Increase the efficiency of the body through physical education and physical activity and physical education cannot be achieved any other educational program should be as an integral part of the program of education. People who have good physical fitness are safe from the dangers of cholesterol-related diseases attack and even their risk of developing the disease is less in the future. Therefore, physical education

teachers in schools and athletic trainers should, where possible, by changing teaching methods and modify the activities and programs and to make activities more students, the next generation aware of the dangers and consequences of a sedentary lifestyle as well as According to the results of this research can be inferred that students can participate in physical education and physical fitness are factors improved their motor and physical education during the year to take sufficient interest.

The results showed that five weeks of activity in physical education classes in

elementary school upper body muscular endurance significant effect(P-value =0.039).

The results showed that five weeks of activity in physical education class on cardiovascular endurance elementary students a significant effect(P-value =0.024).

The results showed that Seven weeks of activity in physical education class does not have a significant impact on flexibility elementary students(P-value =0.127).

First hypothesis: five weeks of activity in physical education classes in elementary school upper body muscular endurance significant effect.

According to the result of this test can be said between the rotator cuff muscle strength in pre- and post-test there is a significant difference And five weeks of activity in physical education classes muscular endurance elementary students a significant effect on the result of research findings Rajayyan and Zahedi (2011) does not match. But research (Salys, 1997) is consistent. Cellular and Molecular Biology likely to increase muscular endurance due to changes in the central nervous system motor unit, muscle neuropsychology connection page, Sarco periplasmic systems involved in the network, or in the mitochondria and contractile proteins occur. Thus, different stimuli, such as hormonal changes, the type,

duration and intensity can determine the position changes. So that they catch up fast after training due to hormonal changes and severe stretching of muscles during exercise know, that these two factors can be reduced reflexes (Salys, 1997). In this case, they are called motor units for a given action that facilitates muscle contraction and increases the ability to produce the power. Such an increase in the pattern of motor units could result from stopping or reducing inhibitory impulses (muscle spindle) that allows simultaneous activation of the motor units more. Exercise can be deterrent impulses gradually reduce or cope with it and to allow the muscle to achieve higher levels of power. Thus increasing the power may be achieved by reducing neural inhibition. While resistance training, stretching and hormonal changes, causing a cascade of gene and protein pathways, in addition to metabolic changes, structural changes, particularly in the MHC, which will eventually increase Hypertrophy size and diameter are blurred, which also has a direct correlation with an increase in muscle strength and endurance (Wilmore & Pollack, 1987). The second hypothesis: five weeks of activity in physical education class on cardiovascular endurance elementary students a significant effect.

According to the result of this test can be said to mean cardiovascular endurance in pretest and post-test, there was an eight-week cardiovascular endurance activities in physical education class in elementary school has a significant impact That the results of the research findings (Gaini et al, 2000; yet, 2004; Rjayyan and Zahedi, 2011) is consistent with the results Eftekhari et al (2007) do not match.

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