

## **Fitness and body composition associated with socio-economic situation of boys students 15-17 years of Tehran district 2**

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### **ABSTRACT**

*The purpose of this study was to determine the relationship between physical fitness, body composition and socio-economic situation of female students 15-17 years in Tehran and 2 were Anzali free zone. The study randomized 100 subjects (50 students and 50 students from the two enjoyed Free Zone) was performed. The instruments used for data collection questionnaire socio-economic situation, particularly the assessment of physical fitness tests. Test, Pearson correlation and regression. The results showed that the socio-economic situation of the family and there was a significant positive relationship between physical fitness. Between socio-economic situation of the family, and no significant relationship between body measurements. These findings indicate that the effect of socio-economic situation on fitness indicators in adolescents. Increasing socio-economic, family, fitness indicators increases adolescents.*

**Keywords:** physical fitness, body composition, socio-economic, physical activity and students

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### **INTRODUCTION**

Physical activity is an indication of man's inner feelings. In primitive societies or nations, overlooking the ancient culture on Earth, there was no organized physical education program, but an integral part of everyday human life form body and healthy body, and good reared morphological people time and physical activity they hunt, trying to provide food, shelter and protect yourself and your family include hazardous environments, has been limited [1]. Tremendous advances in technology and industrial life of the characteristics of the modern world. Consequence of industrial, motor deficiency of the most important problems of modern man's health perspective. This phenomenon is considered to be one of the risk factors of obesity [5]. During these years the one hand, due to the increasing economic power over the lives and welfare of industrial societies, indulgence in fats, meat, sugar, salt, and current smoking, physical activity has decreased and on the other hand [2]. However, the effect of educational level on food intake, obesity and other risk factors varies and depends partly on the degree of economic development of each country [6].and it was not in good mental balance [4].

Having high levels of health indicators, physical capabilities can represent a community's health and empowerment. In developed countries, the industry seems to be the result of obesity, poor diet choices, decreased physical activity and life style is inappropriate. However, genetic and environmental factors play a major role in obesity. Socio-economic factors are included. Studies have shown that the prevalence of obesity and other risk factors for cardiovascular diseases in communities affected by many factors-economic [3]. Several factors may help overweight and obesity, including age, sex, marital status, income, occupation and education level [7]. Socio-economic situation of the family can affect all levels of the child's life both before birth and after birth, affecting and profound changes in the growth of a child [4]. To the children about the importance of good nutrition, school children are chronically

malnourished, on average, smaller and leaps like a teenager with an area of occur less. The main result is the reduction of adult height and muscle mass [3].

Research findings indicate that the mortality rate in children under 5 years of development on the minimum number remains 159 per 1,000, the highest in high-income countries is 6 per 1,000 births [2]. Between health and poverty reduction and economic growth in the long term, there is a strong relationship; the relationship is much stronger than what is commonly assumed [2]. General population is essential to having a healthy society is based on current research on the relationship between physical fitness, body composition and socio-economic situation of female students 15-17 years in Tehran and 2 Anzali free zone read slowly.

## MATERIALS AND METHODS

### Subjects

The population of the study, all female students 17-15 years enrolled in a day school education in Tehran. After initial studies and to agree Tehran Research Council of Education, random cluster sampling of 100 students were selected from different regions of Tehran. Table 1 shows the demographic characteristics.

Table 1: Demographic characteristics

Variable	Average $\pm$ Standard Deviation
Age (year)	15.88 $\pm$ 0.79
Height (cm)	162.33 $\pm$ 7.11
Weight (kg)	53.96 $\pm$ 11.68

### Performance Properties Collecting Method

After obtaining informed consent, the level of socio-economic situation using a questionnaire to assess socio-economic situation was assessed. For the formulation of socio-economic status (SES) variables using the four reagents, income level, educational level, father's occupation and family status were assessed. Calculate four variables for SES, the same weight and the same, from zero to five, was graded, and then, as an additive equation, combined.

$$SES = home + jobs + education + income families$$

Weight and height without shoes and medical scales and tape were measured respectively. Waist to hip circumference at the level of the umbilicus and hip circumference was measured at the greatest diameter. WHR was calculated by dividing the waist to hip ratio. 20 m shuttle run test to estimate Maximal Oxygen uptake was used. For muscular endurance, flexibility, anaerobic power and agility tests in order to sit, bend forward, vertical jump, and two 4 $\times$ 9 mm were used.

### Statistical Method

In this study, descriptive statistics were used to describe the variables under study and to determine the relationship between the conventional and the Pearson correlation coefficient and multiple regression analysis were used. Data extraction was performed using SPSS version 17. P level of less than 0.05 was considered statistically significant.

## RESULTS

Describe the state of physical fitness, anthropometric and socioeconomic characteristics of participants are presented in Table 2. Canonical correlation coefficient test results on the relationship between socioeconomic variables and body fitness variables are summarized in Table 3. Given the significance of the canonical correlation coefficients between socioeconomic variables and fitness, table 4, the results of Pearson correlation between socioeconomic variables and variables of fitness to separate shows.

Table 2: Describe the state of physical fitness, body characteristics and socioeconomic status-subjects

Variable	Average $\pm$ Standard Deviation
Sit-ups (number)	31.13 $\pm$ 12.79
Flexibility (cm)	35.57 $\pm$ 7.11
Explosive power (kg. meters)	62.87 $\pm$ 36.53
4*9 Run (s)	11.38 $\pm$ 2.79
Maximum oxygen consumption (ml/ kg/min)	31.88 $\pm$ 6.11
WHR	53.96 $\pm$ 11.68
Waist circumference (cm)	0.85 $\pm$ 7.12
Socio-economic status (SES)	11.03 $\pm$ 6.22

**Table 3: Results of canonical correlation coefficients of the relationship between socioeconomic variables and body fitness variables subject**

Variable	r	P
Socio-Economic fitness *	0.66	0.000**
Socio-economic characteristics of the body *	0.31	0.16

\* Significant at  $P \leq 0.05$ \*\* Significant at  $P \leq 0.01$ **Table 4: The results of Pearson correlation coefficients between socioeconomic variables and physical fitness of subjects**

Variable	r	P
Sit-ups (number)	0.35	0.000**
Flexibility (cm)	0.43	0.000**
Explosive power (kg. meters)	.21	0.015*
4*9 Run (s)	-0.51	0.001**
Maximum oxygen consumption (ml/ kg/min)	0.20	0.035*

\* Significant at  $P \leq 0.05$ \*\* Significant at  $P \leq 0.01$ 

According to information obtained by social variables - socioeconomic factors and physical fitness of the subjects, there was a significant correlation between  $P=0.000$  and  $r=0.66$ . And Pearson correlation coefficients between social-economic factors and physical fitness in each of the subjects showed a significant positive relationship between social-economic factors and physical fitness (Maximal Oxygen uptake, muscle endurance, flexibility, explosive power and agility) there. Between configuration parameters and variables measuring socio-economic situation of the family was no significant correlation between  $P=0.16$  and  $r=0.31$ .

## DISCUSSIOND AND CONCLUSION

The aim of the present study was. The results of this study indicated that students in the region, the physical factors, other than having a free area, were superior, while the index measuring somatic WHR and waist area students were not entitled to free the region at a higher level. The present findings agree with the results Shklfvr and Delia [8], Atkinson and Russell [9], Solomon and Donald [10], all of which showed the socio-economic situation, there is a significant positive correlation with physical fitness.

In general, observations of social factors-economic growth and development of children, anthropometric, physical fitness and physical activity have been shown [15]. These factors include parental occupational status, family income and education. Childhood nutrition has an effect on family income [11]. Children and families of socio-economic situation has improved, taller, heavier and have more muscle mass and physical performance factors which will affect individuals [6].

In the Swedish study, Shiraz height difference between two different economic status was about 5 cm in comparison with other studies is impressive. As a hypothesis, this difference has been attributed to the prevalence of zinc deficiency in Shiraz [3].

The findings of this study agree with the results MOZAFARI and NABAEI [7], which showed biological and physical conditions of people affected by socio-economic situation of the family is, and also the opposite of Martinez et al [11] showed that the level of education and age is negatively correlated with obesity. About the relationship between the prevalence of overweight and obesity in adolescents with their economic level, the results of studies conducted in developed countries is different from other regions of the world. In industrialized countries are overweight adolescents and children on the lower classes of society [12], but studies confirmed these findings in developing countries [12]. Numerous studies have shown that in poor countries, most obese people among social classes-high economic and social levels, more obese people in rich countries-the economic bottom [13].

The findings of this study agree with the findings of Tremblay and Williams [14] and the opposite results, Mozaffari [7], Shafie [5] stenographer [1] showed that the level of education and socio-economic situation high above the level of physical activity is connected. It also showed the level of education and socio-economic situation of high and low physical activity are associated with. It seems contradictory findings about the relationship between physical activity and socio-economic status, ethnicity, race, culture, socio-economic and cultural development of the country depends. The samples in this study (especially in domestic studies) are people in the halls, sports arenas, or have been involved in the sport (to have been aware of the importance of exercise), so the results cannot be it extended to the general population. Overall, the findings of this study showed a slight increase in the rate of home economics, physical condition of the people improved.

*Research Proposals*

- \* It is recommended that parents and family due to economic opportunity-to consider their community, as the increase in children provides a loss of facilities, each of them.
- \* It is recommended to test the motor development of Lincoln-oseretsky by Iranian professionals to be standardized and standardized form that provides primary and secondary schools in the whole country.
- \* It is recommended that extensive research age range of this study is based on examples from other parts of the country will be done.
- \* Similar studies in the country (National).
- \* A study examining the relationship between motor abilities and academic achievement of students in the two groups.
- \* Check the socio-economic status (SES) and school coaches tend to examine the relationship between activities.
- \* Check the socio-economic status (SES) school players and their association to participate in sporting activities.
- \* Sharing information and education to families in this study provide an important and a necessary duty of the railway authorities, especially the Ministry of Education. Because the parents have not been trained, never trained school would be ideal.

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