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THE RELATIONSHIP BETWEEN EATING HABITS, PHYSICAL ACTIVITY AND SOCIO-ECONOMIC LEVEL IN CHILDREN

Dursun Güler[i]
Amasya University, Education Faculty,
Physical Education and Sports Department,
Amasya, Turkey

Abstract:
The purpose of this study is to determine the socio-economic status of children between the ages of 16 and 18 in the secondary education institutions in the city of Amasya in relation to physical activity. High school in the center of Amasya to investigate 1,2,3, a total of 1000 volunteers, 500 girls and 500 boys participated in the study. Socio-Economic Structure and Physical Activity Level Questionnaire Form were used as instruments for collecting data. In the analysis of the data, Pearson Correlation analysis was used to determine the relationship between parental education, parental occupation, family income level, children's eating habits, presence of physical activity, and physical activity coverage. As a result of the evaluation, it was observed that there was physical activity between mother and father education, parental occupation, family income level and linear relationship with the number of daily meals ($P < 0,05$) and inverse relationship with physical activity extent ($P < 0,05$) . As a result, it can be said that as maternal and paternal education and family income increase, as the occupation of parents increases to the highest level, children have physical activity and increased daily meals, but the duration of physical activity decreases.

Keywords: socio-economic level, physical activity, eating habits, children

1. Introduction

In today's society, more and more people are turning to sedentary lifestyle every day. The health problems that this situation will bring about are known. Exercise is a reality that makes the individual physically and psychologically healthier. Participation in physical activity at an early age reduces the rate of catching various diseases at an older age and offers a longer and better quality of life (Gür, 2006).

[i] Correspondence: email dursun.guler@amasya.edu.tr

During a physical activity, the physiological, biomechanical, and psychological performance performance that physical activity requires is called performance (Astrand and Rodahl, 1986). There are factors that affect performance positively and negatively. These factors are divided into internal and external factors according to the sources of formation. The number of external factors is greater than internal factors. Inheritance, family, social environment, economic components and nutritional performance are some of the factors that affect performance. Therefore, it is easier and more effective to make use of the factors under this heading, to make positive changes and to improve sporty performance (Bayraktar & Kurtoğlu, 2009). All of the social, cultural and economic conditions within the family affect the education, health, nutrition, conditions and the children's development provided to the children throughout their lives starting from the birth (Güler & Günay, 2004).

Physical activity is characterized by physical activity, mental and joyful daily life, protection against body diseases, prevention of natural overgrowth of excess energy consumed, slowing of organic aging caused by aging and aging, achieving superior capacity of respiratory and circulatory systems and protection of this capacity, reduction of neural tensions, (Aracacı & Çankaya, 2007). It is important to understand the effects of the disease on the prevention and prevention of deaths, to protect the health and function of joint-bound joint tissues, and to prevent social isolation and independence. A research on health also affects the risks for early life behavior, lifestyle disorders (Öztürk, 2005).

It has been observed that physical development is also affected by the cereal predominance of feeding in families whose shape and habits are important and their socioeconomic status is low for the development of a healthy growth in children during development period (Öktem et al., 2005). In the United States, attempts to promote physical activity among adults and adolescents have been undertaken in order to improve this, since the adoption of physical activities in later ages is more difficult, and an informed guidance unit (PAG) has been established to provide information on the types and quantities of physical activity, (Chae-Hee Park, 2008). Recognition of regular physical activity and sporting habits at an early age; it is very effective in preventing physical disorders that may occur in later ages and being healthy and fit (Shopçan, 2008).

In this study, it was aimed to determine and evaluate the socio-economic status of children aged 16-18 in secondary education institutions in Amasya province with physical activity.

2. Material and Method

2.1. Study Group

The research group consisted of 1000 volunteers healthy students, including 500 girls and 500 boys, who were educated at the high school level in Amasya city center.

2.2. Data Collection

The questionnaires were applied to the students in high school. In the collection of data, the Physical Activity Assessment Questionnaire (FADA) was applied. The National Education Directorate has taken the necessary permits to apply these surveys to schools. At least two classes were applied to each high school education schools in Amasya. The questionnaire included questions about health problems, diet, eating habits, and physical activity status, including gender, age, height, weight, family education, and income level.

2.3. Data Analysis

In the analysis of the data, frequency and percentage distributions in determining physical activity situations, and Pearson Correlation Analysis Test in determining socio-economic structure and physical activity relations were used.

3. Findings

All the findings of the study are indicated in the following tables:

Table 1: Physical Characteristics of the Study Group

Variables	N	X±Sd	Minimum	Maximum
Height (m)	762	1,69±9,41	150,00	192,00
Weight (kg)	762	64,51±11,73	40,00	100,00
VKİ (k/m²)	762	22,41±2,35	14,85	32,47

In Table 1, the average age of the study group was 22,37 ± 2,22 years, the lengths were 1,69 ± 9,41 cm, body weights were 64,51 ± 11,73 kg, and 22,41 ± 2,35 k / m².

Table 2: Age Distribution of Students

Variables	n	%
15 age and below	204	20,4
16 age	115	11,5
17 age	333	33,3
18 age and above	348	34,8
Total	1000	100,0

Table 2 shows that 20.4% of children are under 15 years of age, 11.5% of them are 16 years of age, 33.3% of them are 17 years of age and 34.8% of them are 18 years of age or older. While the majority of students are aged 18 or over with 34.7%, only 1 is 21 years old.

Table 3: Parent Education Status

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Variables	n	%	n	%
Literate	26	2,6	6	0,6
Not literate	42	4,2	30	3,0
Primary school	449	44,9	269	26,9
Middle School	180	18,0	161	16,1

High school	210	21,0	276	27,6
Faculty / School	84	8,4	237	23,7
Post-graduate education	9	0,9	21	2,1
Total	1000	100,0	1000	100,0

In Table 3, approximately 44.9% of them are primary school graduates, 18% are middle school graduates, 21% are high school graduates and 26.9% are primary school graduates, 16.1% are middle school graduates, 23,7% were university graduates.

Table 4: Mother-Father Occupational Status

	Mother		Father	
Variables	**n**	**%**	**n**	**%**
Unemployed	823	82,3	9	0,9
Worker	38	3,8	263	26,3
Retired	16	1,6	138	13,8
Self-employment	9	0,9	256	25,6
Officer	72	7,2	226	22,6
Senior Officer	42	4,2	108	10,8
Total	1000	100,0	1000	100,0

Table 4 shows that the vast majority of mothers (82.3%) are housewives; 26% of fathers are workers, 25% are self-employed, 22% are civil servants and 10,8% are high-ranking civil servants.

Table 5: Monthly Income Status of Families

Variables	**n**	**%**
2000-4000 TL	42	4,2
4001-6000 TL	51	5,1
6001-8000 TL	103	10,3
8001-10000 TL	221	22,1
15000 TL	197	19,7
15001 TL above	386	38,6
Total	1000	100,0

In Table 5, it is observed that 61.4% of the respondents earn more than 1500 TL, while the others have an income of 1500 and below.

Table 6: Daily Meal Distribution of Children

Variables	**n**	**%**
1 meal	8	0,8
2 meal	172	17,2
3 meal	612	61,2
>4 meal	208	20,8
Total	1000	100,0

Table 6 shows that 8 of the students eat 1 meal per day, 172 eat 2 meals a day, 612 eat 3 meals a day, 208 eat 4 meals a day and 4 meals a day.

Table 7: Children's Physical Activity Duration

Variables	n	%
1 day-1,5-2 hours	136	13,6
1 day-2,5-4 hours	35	3,5
2 day-1,5-2 hours	78	7,8
2 day-2,5-4 hours	33	3,3
3 day-1,5-2 hours	70	7,0
3 day-2,5-4 hours	36	3,6
4 day and above 1,5-2 saat	60	6,0
4 day and above 2,5-4 saat	38	3,8
Other	47	4,7
No sport activity	467	46,7
Total	1000	100,0

According to Table 7, 13,6% of the 570 sportsmen who played sports had 1 day-1,5-2 hours, 3,5% of 1 day-2,5-4 hours, 7,8% of 2 days-1,5-2 hours, 3,3% 2 days-2,5-4 hours, 7% 3 days 1,5-2 hours, 3,6% 3 days2,5-4 hours, 9,8% 4 days and over.

Table 8: Children's sport activity situations according to family income levels

Family Monthly Income	Sport Activity Status				Total
	Yes		No		
	n	%	n	%	
2000-4000 TL	25	59,5%	17	40,5%	100
4001-6000 TL	23	45,1%	28	54,9%	100
6001-8000 TL	44	42,7%	59	57,3%	100
8001-10000 TL	98	44,3%	123	55,7%	100
15000 TL	99	50,3%	98	49,7%	100
15001 TL above	241	62,4%	145	37,6%	100

According to Table 8, it is seen that 62.4% of the students whose monthly income is higher than 1500 0tl have a percentage of the students who make the most sports as a result of comparing the income level with the other income levels.

Table 9: Children's sport activity situations according to family professions

Variables	Sport Activity Status							
	Mother				Father			
	No		Yes		No		Yes	
	n	%	n	%	n	%	n	%
Unemployed	401	48,7	422	51,3	3	33,3	6	66,7
Worker	19	50,0	19	50,0	148	56,3	115	43,7
Retired	6	37,5	10	62,5	71	51,4	67	48,6
Self-employment	3	33,3	6	66,7	120	46,9	136	53,1
Officer	21	29,2	51	70,8	85	37,6	141	62,4
Top Officer	18	42,9	24	57,1	41	38	67	62,0
Total	468	46,8	532	53,2	468	46,8	532	53,2

According to Table 9, it is seen that 48.7% of the unemployed people do not play sports, 51.3% do sports, 62% of the mother retirees play sports, and 70.8% 48.6% of the father retired, 62.4% of the father civil servant, 62% of the father senior officer are doing sports.

Table 10: Correlation between Socio-Economic Structure and Physical Activity Levels of the Subjects Attending the Survey

Variables	Mother Education Background		Father Education Background		Mother Occupation		Father Occupation		Monthly Income	
	n	r	n	r	n	r	n	r	n	r
Activity status	1000	0,16**	1000	0,08*	1000	0,09**	1000	0,14**	1000	0,11**
Scope of activity	1000	-0,14**	1000	-0,7*	1000	-0,08*	1000	0,09**	1000	-0,06*
Breakfast Status	1000	0,01	1000	0,01	1000	0,01	1000	-0,01	1000	0,00
Number of meals	1000	0,19**	1000	0,15**	1000	0,09**	1000	0,11**	1000	0,13**

*P<0,05; **P<0,01

According to Table 10, the effect of mother education status and father education status on activity level is positive. The number of meals and the effect you have on the breakfast are also positive. The more negative the sport, the more negative the effect is. The maternal occupation status, the activity level, the effect on the number of breakfast and meals are positive. The effect of doing sports is negative. The father's occupational status is positive for the level of activity and number of meals and negative for breakfast and how much sports do. The effect on monthly income level, activity level and number of meals is positive. There is no effect on breakfast. The more negative the sport, the more negative the effect is.

4. Discussion and Result

It has been mentioned that besides the genetic structure of growth and biological maturation, environmental factors such as nutrition and socio-economic structure are also influenced; socioeconomic and nutritional factors have an effect on the physical fitness and sports performance levels of children and adults (Güler and Günay, 2004). In a survey conducted, it was found that income level was one of the most influential factors in physical activity and sporting activities of parents, and socioeconomic inequalities had effects on nutrition (Baysal, 2003). The research done by Baysal (2003) is in parallel with our research. In the survey we conducted, it was determined that the education level and income level of the parents were significantly (P <0.01) related to nutrition and physical activity status (Table 10). In another study, it was revealed that the children who were raised in the families worked by both mother and father were more successful and that the participation of women in business life should be encouraged (Dinçer and Kolacin, 2009). In our study, the effect on mother's occupational status, activity level and number of meals was significant in the positive direction (P <0.01), and the effect on the activity in the negative direction (P <0,01) (Table 10). The better the economic level of the family, the better the field and tools to make better use of the ground. Therefore, the greater the involvement of the family in the spore, the more likely they are to encourage their children to play sports

(Gündoğdu et al., 2011). In Table 10, it was found that socio-economic status had significant (P <0,01) relation to physical activity status and significant (P <0,05) inverse relationship to physical activity extent. This relationship in our study seems to be parallel to the literature.

According to Bayrakçı's (2008) research, the lack of knowledge of physical activity knowledge in society, the lack of understanding of the importance of physical activity for health, and the adoption of an increasingly sedentary lifestyle lead to chronic diseases such as obesity, cardiovascular diseases, hypertension, diabetes, osteoporosis. In a study on the relationship between physical activity and socio-economic level in children, there was no significant relationship between education level and income level of the parents and physical activity (P> 0,05) and when the parameters of the minimum wage and middle income group were compared, (P <0,05) difference between the levels of activity (Çekiç et al., 2010). Stephens and Caspersen (1994) found that physical activities, fitness and health demographics have higher levels of physical activity for those with higher levels of education. Albayrak (1998) found no significant difference between income level and physical activity in the study of individuals' and those with higher levels of physical activity frequency were higher. Koçak et al. (2002) concluded that there is a negative relationship between parental education level and physical activity levels of children in 11-14 age children in their studies on parental education level and physical activity levels in children. In another study investigating the physical fitness of children reading in state and private schools, it was observed that children with higher socioeconomic status had higher levels of physical activity than those with lower socioeconomic status (Tekelioğlu, 1999). Yan (2007) found that in the study of children aged 10-13, the daily energy consumption and fat ratios of those in the minimum wage and middle income groups that compared the structural characteristics of those with socio-economic differences were higher than the high income group. It has also been found that children of lower socio-economic families have positive thoughts about doing sports, but their financial strength is a negative factor in their children's participation in physical activity. As the level of income of the parents increases, participation in physical activity increases while duration of participation in physical activity decreases. Some researchers have pointed out that as the socio-economic level increases, regular sports facilities and the rate of increase are increased (Goslin & Burden, 1986, Tekelioğlu, 1999). It has been emphasized that children with low socioeconomic level have more freedom to go out than those with higher ones and that such an atmosphere will increase the chances of the child to make more physical activities and increase motor skills (Tekelioğlu, 1999). In our study, parents' educational status and income increased significantly (P <0,05, P <0,01) and significantly (P <0,01) the extent of physical activity (Table 10). Our study shows some similarities and differences in the results of the literature on parent education and income level, physical activity level and scope of activity, but there is parallelism in overeating with socio-economic level. However, since knowledge is important to promote sport and increase life, the result of this study is that the high

level of parental education does not show that they have too much knowledge about physical activity. When considered from the point of view of health, the low level of children doing physical activity means that they may negatively affect their future lives. Therefore, it was expected that both parental education level and income would increase both the participation level and the activity level.

As a result, it can be said that as maternal and paternal education and family income increase, as the occupation of parents increases to the highest level, children have physical activity and increased daily meals, but the duration of physical activity decreases.

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