

## Assessment of Youth Leaders' Physical Activity Levels

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**Abstract---Aim:** The purpose of this study is to investigate the levels of physical activity among youth leaders working in Turkey's Eastern Anatolia region.

**Methods:** The purpose of this study is to examine the levels of physical activity among youth leaders operating in the Eastern United States. The study's field includes 111 boys and 60 girls, for a total of 171 young leaders operating in the Eastern Anatolia Region. The sample includes 79 men and 49 women, for a total of 128 youth leaders in these provinces. The study rely on the short form of the International Physical Activity Questionnaire (IPAQ).

The data is analyzed using mean and standard deviation analysis techniques, with the Mann-Witney-U and Kruskal Wallis test used to evaluate differences. The results is statistically significant at  $p < 0.05$ .

**Results:** According to the obtained results, the Physical Activity (FA) levels of the youth leaders are  $1742.3 \pm 11.81.0$  MET-min/wk, 20.3% inactive, 21.9% minimally active, 57.8% in terms of FA category. It is discovered to belong to the category of extremely active. Women have higher levels of physical activity than men, with a statistically significant difference ( $p < 0.05$ ). At the FA level according to the provinces, Erzurum province is seen as very active and Elazığ province is in the inactive category.

**Conclusion:** As a result, it is determined that women are better than men in the FA levels of youth leaders by gender. For the provinces that are inactive in the distribution of youth leaders' FA levels by provinces, programs to improve physical activity for youth leaders are also; it can be said that the quality of life can be increased by explaining the importance of physical activity through seminars and symposiums.

**Keywords---** Physical Activity, Anatolia, Sports, Youth Leader.

### I. Introduction

In daily life, FA (physical activity) is defined as activities that increase the heart rate and respiration level and cause fatigue at different intensities as a result of energy expenditure by using the joints. However, the housework we do in our daily life, gardening, etc. activities included<sup>1</sup>. The Ministry of Youth and Sports defines the youth leader as guiding the youth in youth centers, providing coordination between the youth and the management, helping by supporting the activity program to be implemented. At the same time, they are also known as those who successfully completed the youth leader training opened by the Ministry and were entitled to receive the youth leader certificate<sup>2</sup>. Youth leader; among the youth center programs, we come across as people who carry out activities and activities with volunteer young people who are members of the youth center<sup>3</sup>. FA is beneficial for health at any age. Most importantly, it is important for the health of young people and children. In addition, it can be seen that there are serious differences even in the health of people who live actively in the old age period<sup>4</sup>. With the advancing technology, other factors such as business life and urbanization negatively affect the health of the person, while physical activity has made the importance of physical activity more evident as it is beneficial for many diseases such as cardiovascular diseases, obesity, cancer and diabetes<sup>5</sup>. Recently, while technological developments, business life, urbanization and other factors affect human health negatively, it is known that regular FA has benefits on diseases such as obesity, cardiovascular diseases, health problems, diabetes and cancer<sup>6</sup>. A sedentary life creates serious health problems (vascular and heart diseases, diabetes, obesity, etc.). In order to prevent these and similar problems and to increase their quality of life, it is recommended to do FA<sup>7</sup>.

Purpose of the study; The study is important for the youth leaders working in the Eastern Anatolia Region.

### II. Material and Method

Research one of the qualitative research models was applied to determine the FA levels of 171 youth leaders working in the Eastern Anatolia Region, the IPAQ (International Physical Activity Questionnaire) questionnaire was applied to collect data<sup>8</sup>. The field of this study consists of 171 youth leaders in total, 111 men and 60 women, working in the Eastern Anatolia Region (Ağrı, Malatya, Ardahan, Tunceli, Erzurum, Erzincan, Van, Iğdır, Kars,

Muş, Bingöl, Bitlis, Elazığ, Hakkari). 79 men and 49 women who work in these provinces constitute a total of 128 youth leaders.

**Study Design**

In this study, questions were asked to the participants to determine their demographic characteristics such as gender, age, height, weight, province of employment, year of employment. The short form of the International Physical Activity Questionnaire (IPAQ) was used. Studies that establish validity and reliability at the international level; for this survey, which was created by Craig et al., the reliability and validity studies in Turkey were carried out by Öztürk in university students<sup>9</sup>.

The International Physical Activity Assessment Questionnaire (IPAQ) was developed to determine the FA levels of participants between the ages of 15 and 65 Craig et al., 2003. The validity and reliability study of the IPAQ questionnaire were conducted by<sup>9</sup>, for students in the education process at universities in Turkey, as well as by Hacettepe University School of Sports Sciences and Technology in 2007<sup>10</sup>. Scoring the IPAQ questionnaire: this short form (7 questions); provides information on walking, time spent in vigorous and moderately vigorous activities, and energy expended while sitting. Calculation of the total score of the short form includes the sum of the duration (minutes) and frequency (days) of walking, vigorous activity and moderate-intensity activity. The energy required for the activities to be performed is calculated by the MET-minute score. In performing these activities, MET values have been established in a certain standard.

These; Walking = 3.3 METs.

Moderate-Vigorous Physical Activity = 4.0 METs.

Vigorous Physical Activity = 8.0 METs, Sitting = 1.5 METs.

Using these values, the weekly and daily physical activity level is calculated. For example; 30 minutes in 3 days. Walking MET-min/week score of a walking person:

$3.3 \times 3 \times 30 = 297$ , it is calculated as MET-min/week.

Walking MET-min/week = 3 x walking minutes x walking days.

Vigorous MET-min/week = 8.0 x minutes of vigorous activity x number of days of vigorous activity.

Total, MET-min/week = (walking + moderate + vigorous + sitting) MET-min/week.

With the realization of this continuous scoring, classification is made according to the numerical information obtained. Accordingly, there are 3 activity levels:

1. Inactive (category 1): It is the lowest level of FA. Conditions that cannot be included in categories 2 and 3 are considered Inactive.
2. Minimally active (category 2): Those who meet any of the following criteria are minimally active.
  - a) 3 days or at least 20 minutes for 3 days. 5 days or 5 days of moderate-intensity activity or at least 30 minutes of walking per day.
  - b) Combination of walking and moderate-intensity activity for 5 or more days providing a minimum of 600 MET-min/week
3. Very active (category 3): This measurement equates to at least an hour or more of moderate-intensity activity per day. This category is the level required to provide health-related benefits. A- At least 3 days of vigorous activity providing a minimum of 1500 MET-min/week or 7 or more days of walking providing a minimum of 3000 MET-min/week, a combination of moderate or vigorous activity<sup>11</sup>.

**Data Analysis**

SPSS package program was used for data analysis. The "arithmetic mean, percent frequency standard deviation" statistical method was applied to the demographic information and FA levels of the group participating in the research. For in-group comparisons; Mann-Witney-U test was used for binary variables and Kruskal Wallis test was used for groups of more than two. Statistical significance was accepted at the  $p < 0.05$  level.

**III. Results**

Table 1: Comparison of FA Levels of Participants by Gender

Gender	N	Mean	Standard Deviation	F	P
Male	79	1548,9	984,6	10,5	0,02
Female	49	2054,2*	1397,8		

\* $p < 0,05$ .

The FA levels of the youth leaders participating in the study by gender are shown in Table 1. As a result of the study, when the FA level according to the genders is examined; the mean FA score of female leaders (2054,2±1397.8) was higher than that of male leaders (1548.9±948.6), and a statistically significant result was observed ( $p < 0.05$ ).

Table 2: Comparison of FA Levels of Participants by Age

Cinsiyet	N	Mean	Standard Deviation	F	P
20-25 Age	4	233,0 <sup>a</sup>	0,67	16,0	0,00
26-30 Age	55	1255,5 <sup>ab</sup>	810,1		
31-35 Age	53	1989,8 <sup>bc</sup>	1027,7		
36-40 Age	16	2973,4 <sup>c</sup>	1573,2		
Total	128	1742,3	1181,0		

p<0,05. Different letters in the same column express significance.

The comparison of FA levels by age of youth leaders participating in the study is shown in Table 2. As a result of the study, when the FA level according to age is examined; it was observed that the FA score of the people in the 36-40 age range was higher, and a statistically significant result was observed (p<0.05).

Table 3: Comparison of Participants' FA Levels by Weight

Weight	N	Mean	Standard Deviation	F	P
60-70	28	950,7 <sup>a</sup>	845,4	12,6	0,00
71-80	33	1349,5 <sup>a</sup>	703,8		
81-90	52	2312,5 <sup>b</sup>	1068,9		
+90	15	2107,7 <sup>b</sup>	1735,5		
Total	128	1742,3	1181		

p<0,05. Different letters in the same column express significance.

The comparison of FA levels by weight of youth leaders participating in the study is shown in Table 3. As a result of the study, when the FA level according to the weight is examined; a statistically significant result was observed in favor of people in the 81-90 kg range (p<0.05).

Table 4: Comparison of the FA Levels of the Participants with the Workers

Province Worked	N	Mean	Standard Deviation	F	P
Elazığ	18	500,4 <sup>a</sup>	189,2	5,92	0,01
Malatya	9	1575,7 <sup>abcd</sup>	697,6		
Tunceli	8	1128,2 <sup>abc</sup>	327,1		
Erzincan	7	678,4 <sup>ab</sup>	727,7		
Bingöl	10	2133,3 <sup>bcd</sup>	338,6		
Erzurum	15	2344,8 <sup>cd</sup>	616,3		
Muş	7	2871,5 <sup>d</sup>	1256,9		
Bitlis	11	1939,7 <sup>abcd</sup>	1079,9		
Hakkari	5	2500,9 <sup>cd</sup>	303,3		
Van	14	1571,1 <sup>abcd</sup>	1141,7		
Ağrı	7	2050,1 <sup>abcd</sup>	1404,3		
Iğdır	11	2619 <sup>cd</sup>	1513,9		
Kars	6	1742,5 <sup>abcd</sup>	2072,0		
Ardahan	0	0	0		
Total	128	1742,3	1181,0		

p<0,05. Different letters in the same column express significance.

The comparison of the FA levels of the youth leaders participating in the study according to the provinces they work is shown in Table 4. As a result of the study, when the FA level is examined according to the work done; A statistically significant result was found in favor of youth leaders working in Erzurum, Muş, Hakkari and Ağrı provinces (p<0.05).

Table 5: Comparison of FA Levels of Participants by Marital Status

Marital status	N	Mean	Standard Deviation	F	P
Married	66	1231 <sup>a</sup>	790,6	17,4	0,00
Single	58	2344,1 <sup>b</sup>	1229,5		
Widow	4	1453,6 <sup>ab</sup>	1979		
Total	128	1742,3	1181		

p<0,05. Different letters in the same column express significance.

The comparison of FA levels of the Youth Leaders participating in the study according to their Marital Status is shown in

Table 5. As a result of the study, when the FA level is examined according to marital status; It was seen that single people had higher FA scores and a statistically significant result was observed ( $p < 0.05$ ).

Table 6: Comparison of Participants' FA Levels by Year of Work

Working Year	N	Mean	Standard Deviation	F	P
1-5 Year	44	980,8c	746,1	13,7	0,00
6-10 Year	78	2121,8a	1090,1		
11-15 Year	5	1991,7ab	2094		
16-20 Year	1	4408c	0,057		
Total	128	1742,3	1181		

$p < 0,05$ . Different letters in the same column express significance.

The comparison of FA levels of the youth leaders participating in the study according to the working year is shown in Table 6. As a result of the study, when the FA level is examined according to the working year; It was observed that the FA score of people working between 16-20 years was higher, and a statistically significant result was observed ( $p < 0.05$ ).

Table 7: Distribution of Participants' FA Level by Categorical Classification

Categorical Classification of Physical Activity Level	N	%
Inactive	26	20,3
Minimal Active	28	21,9
Hepa Active	74	57,8
Total	128	100

#### IV. Discussion and Result

Looking at the study findings, it was seen that there was a significant difference in the FA level of youth leaders by gender. It was determined that female youth leaders' FA scores ( $2054,2 \pm 1397.8$ ) were even higher than male youth leaders ( $1548.9 \pm 984.6$ ) ( $p < 0.05$ ). When similar studies on the subject are examined, it is seen that female participants have higher FA levels than male participants<sup>12</sup>. In a study conducted in developing countries, it was observed that women's FA scores were higher than men<sup>13</sup>. In the study conducted by Coşkun in 2021 on the examination of obesity frequency, FA level and healthy lifestyle behaviors in adolescent children, it was seen that men had higher FA scores than women, and a statistically significant result was found<sup>14</sup>. In another study, it was seen that the total FA score of men was higher than that of women<sup>15</sup>. In our study, we can say that the higher FA levels of women compared to men are due to an increase in women's consciousness level, increased participation in social life and employment, or the characteristics of the sample group. Considering age, which is another finding of our study, a statistically significant result was found that the FA score of the people in the 36-40 age range was higher ( $p < 0.05$ ). In a study examining the relationship between academicians' participation in PA and quality of life, it was observed that there was a significant difference according to the age variable<sup>16</sup>. In another study, as a result of the examination of FA levels according to age groups, it was determined that individuals aged 40 and over had adequate FA<sup>17</sup>. In a separate study; FA levels of people aged 40 and over were found to be high according to age groups<sup>18</sup>. The results of another similar study are similar to ours<sup>19</sup>. In the study to determine the FA levels of the students studying at the university; it was concluded that there was no relationship between the age variable and FA levels<sup>20</sup>. In his study on examining the FA and inactivity status of university students according to age and gender in 2021, Yaman found a significant result in FA levels according to age<sup>21</sup>. The studies carried out support our study.

When the marital status, which is another finding of our study, is examined; It was seen that the FA score of single people was higher than those who were married and widowed. In a study on FA, it was determined that single women were more active than married women<sup>22</sup>. In a similar study conducted on the subject, it is seen that the married participants have similar FA levels compared to the single or divorced participants<sup>23</sup>. In another study, it was determined that the FAs of single women were lower than those of married women<sup>22</sup>. In a different study, it was determined that the married women who participated in the research had a significantly higher energy expenditure for moderate PA and the activities they did at home than the single women<sup>24</sup>. In this study on the effects of FA levels of teachers working in primary education institutions on the quality of life, which he conducted in 2021, Güler stated that the FA level of single participants was higher than that of married participants<sup>25</sup>.

Considering the working year, which is the last finding of our study; It was determined that the FA score was higher in favor of those working in the range of 6-10 years. In the results obtained for FA and working year; it has been observed that as the years of study of academic's increase, the time they will be physically active decreases significantly<sup>26</sup>. In a review of desk workers; when the duration of the working years was examined, it was

determined that FA levels did not change significantly<sup>27</sup>. According to the results obtained in a separate study, no statistically significant relationship was found between the academic year of study and the level of FA<sup>28</sup>.

It was observed that most of the youth leaders who participated in the study had high FA levels. In general, the high number of these indicates a good result in terms of the quality of the study. However, when the FA distributions by provinces were examined, inactive and minimally active provinces were determined. It can be said that by organizing seminars and symposiums on the importance of FA in inactive provinces, awareness of youth leaders working in these provinces will be raised and it will contribute to an increase in FA levels. In addition, this study, which is a due diligence study, can be shared with the administrative chiefs responsible for the personnel in the provincial directorates, and studies can be carried out to organize programs that encourage people to attend FA for the prevention of obesity, coronary heart diseases and diabetes, which are the diseases of our age.

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