

## EVALUATION OF PHYSICAL ACTIVITY LEVELS AND QUALITY OF LIFE OF TEACHERS

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### Abstract

The aim of this study is to evaluate the levels of physical activity levels and quality of life of teachers. 474 volunteer teachers [male ( $n = 276$ ) and female ( $n = 198$ )] participated in this study. Permission was obtained from the Provincial Directorate of National Education at the beginning of the research. The teachers who participated in this study applied the physical activity short form and SF-36 quality of life scale (8 dimensions, 2 summary score) as well as personal information forms including age, gender, height, body weight. The independent samples T test was used to compare pair wise groups variables and One-way ANOVA was used to compare more than two group's variables. The Tukey test was used to determine the difference between multiple groups. When the difference between participants' age groups, gender and physical activity levels and quality of life summary scores were examined; statistically significant differences were found in the physical health scores ( $p < 0.05$ ) and no statistically significant difference was found in the mental health scores ( $p > 0.05$ ) of the teachers. It has been found that increased levels of physical activity increases physical health summary scores. In addition, when the difference between body mass index and quality of life summary scores is examined; there was no statistically significant difference in mental health summary scores ( $p > 0.05$ ). As a result, it was found that increased levels of physical activity increases physical health summary scores of the teachers, but does not change mental health summary scores.

**Key words:** Turkish teachers, quality of life, physical activity levels, mental health, physical health.

### Introduction

Physical activity is defined as the whole of physical movements such as housework, walking, sports, dancing, which require energy expenditure over the basal level (Yildirim et al., 2016). The positive benefits of physical activity on health are well known. Regular physical activity prevents the development of cardiovascular diseases, heart conditions, certain types of cancer, and all causes of mortality. Regular physical activity has positive effects on blood pressure, lipid and lipid protein profile, weight control, mental health and psychological well-being (Haskell et al., 2007).

It has also been reported that physical activity has a positive effect on performance in the workplace, activities within the house, capacity to assess leisure, and mental state (Karakaş and Yaman, 2017). Regular physical activity contributes to disease reduction, socio-economic efficiency, cognitive functioning and maintenance; thus leading to an increment in the quality of life (Isik et al., 2014). Endorphins and opioids released after physical activity raise the pain threshold and create a psychological general well-being.

This provides people a high quality of life (Ozer and Baltacı, 2008). There are many definitions of quality of life today, but there is no universally accepted definition. In order to understand this concept well, it is necessary to consider the subjectivities of individuals. The quality of life is related to the individual's hopes, expectations, and perceived deficits. Individuals reveal their situation

and expectations by comparing their social situations they perceive with others. Many variables such as age, gender, educational level, socio-economic level, health status, religious beliefs play a role in shaping hopes and expectations (Durmaz and Atamaz, 2006). In the literature the quality of life is expressed by the concepts of welfare, satisfaction, well-being, security, compliance and subjective health (Isik and Meric, 2010).

The main aim in life quality is to determine how much the individual is satisfied or uncomfortable with his / her physical, psychological, social functions and economic situations (Dilbaz, 1996). Although there is no evidence that physical activity prolongs life, physical activity has been shown to reduce the speed of some negative changes in the body that will occur with aging, and to make it easier to protect from some diseases.

The primary goal of living creatures in the present is to maintain their lives in a simple sense. Unlike other living things in the world, mankind tries to increase life quality as well as to maintain life.

A better quality of life also requires working, producing and being healthy. All these simple facts constitute the basis of man's mobility in everyday life (Vural, 2010). In this context, the aim of this study is to examine the relationship between teachers' physical activity levels and quality of life through various variables and to show the effect of physical activity on their quality of life.

## Methods

### Participants

This research is a descriptive research. 474 teachers [male (n = 276) and female (n = 198)] participated in the survey. Data related to the physical activity variable were obtained by "International Physical Activity Questionnaire Short Form", data related to the quality of life variable were obtained by "Quality of Life Scale SF-36" and data related to demographic information were obtained by "Personal Information Form".

### Physical Activity Scale

In the study, to assess the level of physical activity, Turkish adapted version of "International Physical Activity Questionnaire" scale developed by Craig et al. (2003) was used (Öztürk, 2005). In the study, the physical activity level was assessed with the short form evaluating the last seven days. The calculation of the total score of the short form includes the sum of time (minutes) and frequency (days) of walking, moderate activity and severe activity.

In the evaluation of all activities, the criterion is that each activity is performed at least 10 minutes at a time. A score of "MET-minutes/week" is obtained by calculating the minutes, days and MET values (Craig et al., 2003; Öztürk, 2005). The level of physical activity was calculated as follows.

- Walking score (MET- minutes/week) = 3.3 X walking time X day
- Medium activity score (MET- minutes/week) = 4.0 X medium activity time X day
- Severe activity score (MET- minutes/week) = 8.0 X severe activity time X day
- Total Physical Activity Score (MET-minutes/week) = Walking + Moderate activity + Severe activity scores.

Physical activity levels of the teachers were classified as inactive (<600 MET- minutes/week), minimal active (600-3000 MET-minutes/week) and very active (> 3000 MET- minutes/week) (Isik, Ozarslan and Bekler, 2015). *SF-36 Quality of Life*

### Evaluation Questionnaire

In the study, to assess teachers' quality of life, the SF-36 scale developed by Ware (1987) and the validity and reliability study of which was performed by Koçyiğit et al. (1999) was used.

In this scale, in which health was examined as of 8 sub-dimensions and 2 summary scales, high scores indicate a better level of health.

The questions in the SF-36 scale were merged to form sub-dimensions; Physical function (PF), physical role (PR), bodily pain (BP), general health perception (GHP), vitality (V), social function (SF), mental role (MR) and mental function (MH). Summary scores are calculated with the coefficients obtained from the component score coefficient

matrix by Z score transformation of these sub-dimensions. Finally, the calculated quality of life summary scores (physical and mental health) are converted as being 50 means and 10 standardized deviations (McDowell, 2006).

### Statistical Analysis

The data were analyzed with the SPSS 18.0 package program. The physical activity levels of the teachers were classified as "600 MET-minutes/week", "600-3000 MET- minutes/week" and "3000 MET- minutes/week". One-way ANOVA was used to compare the quality of life sub-dimensions and summary scores according to physical activity levels, age and body mass indexes. In case of differences between groups as a result of the variance analysis, the Tukey test was used to determine where the difference originated. Independent samples t test was used to compare quality of life according to gender. Significance was determined as  $p < 0.05$ .

## Results

The mean age of the teachers participating in the study (n = 474) was  $30,21 \pm 12,60$  (years), the mean of height was  $1,71 \pm 0,07$  (meters), the mean of body weight was  $68,01 \pm 11,00$  (kilograms) and the mean of body mass index was  $23.21 \pm 2.86$  (kg / m<sup>2</sup>).

Table 1. Classification of Physical Activity Levels of Participants

Physical Activity Levels (MET- minutes/week)	N	%	$\bar{X} \pm S.D.$
Inactive levels (<600)	185	39	246,20±214
Minimal Active Levels (600-3000)	241	50,8	1485,40±600,58
Very Active Levels (>3000)	48	10,2	3906,30±796,59
Total	474	100	1246,90±1184,15

When the physical activity scores according to participants' MET values were examined in Table 1, it was found that those who had inactive levels of physical activity had an average of  $\bar{X}=246,20$  MET-minutes/week, those with minimal active levels of physical activity had an average of  $\bar{X}=1485,40$  MET- minutes/week and those who had very active levels of physical activity had an average of  $\bar{X}=3906,30$  MET- minutes/week.

Examining the quality of life summary scores, while there was significant difference between Physical activity groups in terms of Physical Health scores ( $p < 0,05$ ), there was no significant difference in Mental Health scores ( $p > 0,05$ ). In addition, the Physical activity group with the highest average Physical Health score was identified as "Very Active Level". While there were significant differences in the quality of life sub-dimensions Physical function, Physical role and Bodily pain between Physical Activity groups ( $p < 0,05$ ), there were no significant differences in the other sub-dimensions ( $p > 0,05$ ).

Table 2. Comparison of the Quality of Life Sub-dimensions according to Physical Activity Levels of Participants

Quality of Life Sub-dimensions	Physical Activity Level(MET-minutes/week)	N	$\bar{X}\pm S.D.$	P
Physical Function	Inactive Level	185	77,78±19,36 <sup>b</sup>	0,000***
	Minimal Active Level	241	85,64±14,90 <sup>a</sup>	
	Very Active Level	48	90,73±10,96 <sup>a</sup>	
Physical Role	Inactive Level	185	62,84±42,52 <sup>b</sup>	0,000***
	Minimal Active Level	241	77,18±35,32 <sup>a</sup>	
	Very Active Level	48	76,56±33,58 <sup>a</sup>	
Bodily Pain	Inactive Level	185	26,16±20,37 <sup>a</sup>	0,002**
	Minimal Active Level	241	20,25±16,83 <sup>b</sup>	
	Very Active Level	48	19,58±15,29 <sup>b</sup>	
General Health Perception	Inactive Level	185	26,16±10,05	0,833
	Minimal Active Level	241	20,25±9,88	
	Very Active Level	48	19,58±7,91	
Vitality	Inactive Level	185	46,81±12,23	0,054
	Minimal Active Level	241	47,22±10,11	
	Very Active Level	48	43,02±10,45	
Social Function	Inactive Level	185	49,86±15,20	0,231
	Minimal Active Level	241	49,84±14,27	
	Very Active Level	48	46,09±11,58	
Mental Role	Inactive Level	185	52,79±42,20	0,082
	Minimal Active Level	241	61,27±41,43	
	Very Active Level	48	62,50±36,14	
Mental Function	Inactive Levels	185	53,62±9,69	0,461
	Minimal Active Level	241	54,44±8,61	
	Very Active Level	48	55,25±9,14	

\*\*p<0,01, \*\*\*p<0,001, ab: the differences between the groups are shown in different letters.

Table 3. Comparison of the Quality of Life Summary Scores according to Participants' Physical Activity Levels

Quality of Life Summary Scores	Physical Activity Level (MET-minutes/week)	N	$\bar{X}\pm S.D.$	P
Physical Health	Inactive Level	185	47,08±11,01 <sup>b</sup>	0,000***
	Minimal Active Level	241	51,58±8,96 <sup>a</sup>	
	Very Active Level	48	53,32±7,85 <sup>a</sup>	
Mental Health	Inactive Level	185	50,11±10,84	0,593
	Minimal Active Level	241	50,19±8,87	
	Very Active Level	48	48,60±11,94	

\*\*\*p<0,001, ab: the differences between the groups are shown in different letters.

While there were significant differences in the quality of life sub-dimensions Physical function, Physical role, Bodily pain, General health perception and Mental role according to gender (p <0,05), there were no significant differences in the other sub-dimensions (p > 0,05). Examining the difference in the quality of life summary scores according to the gender (Table 5), while there was significant difference in Physical Health summary scores (p <0,05), there was no significant difference in Mental Health summary scores (p > 0,05).

Table 4. Comparison of Sub-dimensions of Quality of Life by Gender

Quality of Life Sub-dimensions	Male(n=276)	Female(n=198)	P
	$\bar{X}\pm S.D.$	$\bar{X}\pm S.D.$	
Physical Function	85,07±16,15	80,33±17,90	0,003**
Physical Role	76,36±35,30	64,77±42,15	0,002**
Bodily Pain	20,69±18,23	25,00±18,30	0,012*
General Health Perception	53,88±10,01	56,41±9,21	0,005**
Vitality	46,09±11,35	47,40±10,64	0,199
Social Function	49,37±14,60	49,62±14,19	0,849
Mental Role	63,53±39,98	50,51±42,18	0,001**
Mental Function	55,09±13,13	54,40±14,17	0,594

\*p<0,05 \*\*p<0,01

Table 5. Comparison of the Quality of Life Summary Scores according to Participants' Gender

Quality of Life Summary Scores	Gender	N	$\bar{X}\pm S.D.$	P
Physical Health	Male	276	51,62±9,08	0,000***
	Female	198	47,74±10,76	
Mental Health	Male	276	49,51±10,33	0,21
	Female	198	50,68±9,51	

\*\*\*p<0.001

Table 6. Comparison of Sub-dimensions of Quality of Life by Age Groups

Quality of Life Sub-dimensions	Age (Years)	N	$\bar{X}\pm S.D$	P
Physical Function	<26	86	85,41±13,46 <sup>a</sup>	<b>0,003**</b>
	26-30	213	84,06±16,74 <sup>a</sup>	
	31-35	115	82,78±18,10 <sup>ab</sup>	
	36-40	42	73,45±21,34 <sup>b</sup>	
	>40	18	85,00±10,71 <sup>ab</sup>	
Physical Role	<26	86	76,74±36,54	0,159
	26-30	213	69,72±38,53	
	31-35	115	71,74±39,81	
	36-40	42	63,10±41,41	
	>40	18	86,11±33,46	
Bodily Pain	<26	86	22,21±17,52	0,113
	26-30	213	23,47±18,96	
	31-35	115	20,61±17,13	
	36-40	42	26,67±21,26	
	>40	18	14,44±12,47	
General Health Perception	<26	86	55,23±10,68	0,430
	26-30	213	54,84±9,56	
	31-35	115	55,91±9,61	
	36-40	42	52,62±9,58	
	>40	18	53,89±8,67	
Vitality	<26	86	45,29±10,69	0,362
	26-30	213	46,74±10,98	
	31-35	115	47,87±11,55	
	36-40	42	46,90±11,20	
	>40	18	43,33±10,15	
Social Function	<26	86	51,45±14,14	0,632
	26-30	213	48,65±14,12	
	31-35	115	49,78±15,44	
	36-40	42	48,51±13,58	
	>40	18	50,00±14,85	
Mental Role	<26	86	54,26±37,94	0,065
	26-30	213	58,69±42,63	
	31-35	115	62,61±41,22	
	36-40	42	44,44±40,77	
	>40	18	72,22±38,35	
Mental Function	<26	86	50,65±9,69 <sup>a</sup>	<b>0,022*</b>
	26-30	213	55,94±17,29 <sup>b</sup>	
	31-35	115	56,31±8,30 <sup>b</sup>	
	36-40	42	54,00±10,16 <sup>ab</sup>	
	>40	18	53,33±9,32 <sup>ab</sup>	

\*\*p<0,01 \*p<0,05, ab: the differences between the groups are shown in different letters.

Table 7. Comparison of Life Quality Summary Scores according to Age Groups

Quality of Life Summary Scores	Age (Years)	N	$\bar{X}\pm S.D$	P
Physical Health	<26	86	50,09±8,58 <sup>a</sup>	<b>0,027*</b>
	26-30	213	50,06±10,40 <sup>a</sup>	
	31-35	115	50,71±9,59 <sup>a</sup>	
	36-40	42	45,82±11,46 <sup>b</sup>	
	>40	18	54,05±8,09 <sup>a</sup>	
Mental Health	<26	86	47,89±9,77	0,071
	26-30	213	50,37±10,60	
	31-35	115	51,58±9,40	
	36-40	42	49,31±8,58	
	>40	18	47,20±9,13	

\*p<0,05, ab: the differences between the groups are shown in different letters.

Table 8. Comparison of Quality of Life Sub-Dimensions according to Body Mass Index Groups

Quality of Life Sub-dimensions	Body Mass Index(kg/m2)	N	$\bar{X}\pm S.D$	P
Physical Function	<18,5 (Thin)	9	77,78±15,43 <sup>ab</sup>	<b>0,007**</b>
	18,5-24,9 (Normal)	315	83,44±16,77 <sup>a</sup>	
	25-29,9 (Overweight)	146	83,42±17,00 <sup>a</sup>	
	≥30 (Obese)	4	55,00±25,17 <sup>b</sup>	
	<18,5 (Thin)	9	52,78±50,69	
Physical Role	18,5-24,9 (Normal)	315	69,92±38,87	0,187
	25-29,9 (Overweight)	146	76,20±37,06	
	≥30 (Obese)	4	68,75±47,32	
	<18,5 (Thin)	9	30,00±23,98	
	18,5-24,9 (Normal)	315	22,73±18,53	
Bodily Pain	25-29,9 (Overweight)	146	21,51±17,71	0,578
	≥30 (Obese)	4	22,50±17,08	
	<18,5 (Thin)	9	51,11±12,19	
	18,5-24,9 (Normal)	315	55,41±9,75	
	25-29,9 (Overweight)	146	54,21±9,61	
General Health Perception	≥30 (Obese)	4	52,50±9,57	0,364
	<18,5 (Thin)	9	40,56±12,61 <sup>b</sup>	
	18,5-24,9 (Normal)	315	46,25±10,88 <sup>b</sup>	
	25-29,9 (Overweight)	146	47,47±11,04 <sup>b</sup>	
	≥30 (Obese)	4	60,00±14,14 <sup>a</sup>	
Vitality	<18,5 (Thin)	9	45,83±6,25	0,330
	18,5-24,9 (Normal)	315	49,56±14,84	
	25-29,9 (Overweight)	146	49,83±13,85	
	≥30 (Obese)	4	37,50±10,21	
	<18,5 (Thin)	9	51,85±47,47	
Social Function	18,5-24,9 (Normal)	315	55,56±42,06	0,210
	25-29,9 (Overweight)	146	63,47±39,02	
	≥30 (Obese)	4	75,00±50,00	
	<18,5 (Thin)	9	48,44±11,74	
	18,5-24,9 (Normal)	315	55,47±15,17	
Mental Role	25-29,9 (Overweight)	146	53,56±9,38	0,166
	≥30 (Obese)	4	62,00±2,31	
	<18,5 (Thin)	9	51,85±47,47	
	18,5-24,9 (Normal)	315	55,56±42,06	
	25-29,9 (Overweight)	146	63,47±39,02	
Mental Function	≥30 (Obese)	4	75,00±50,00	0,210
	<18,5 (Thin)	9	45,83±6,25	
	18,5-24,9 (Normal)	315	49,56±14,84	
	25-29,9 (Overweight)	146	49,83±13,85	
	≥30 (Obese)	4	37,50±10,21	
Mental Function	<18,5 (Thin)	9	51,85±47,47	0,210
	18,5-24,9 (Normal)	315	55,56±42,06	
	25-29,9 (Overweight)	146	63,47±39,02	
	≥30 (Obese)	4	75,00±50,00	
	<18,5 (Thin)	9	48,44±11,74	
Mental Function	18,5-24,9 (Normal)	315	55,47±15,17	0,166
	25-29,9 (Overweight)	146	53,56±9,38	
	≥30 (Obese)	4	62,00±2,31	
	<18,5 (Thin)	9	51,85±47,47	
	18,5-24,9 (Normal)	315	55,56±42,06	

\*p<0,05 \*\*p<0,01, ab: the differences between the groups are shown in different letters.

While there were significant differences in the quality of life sub-dimensions Physical function and Mental function between age groups (p <0,05), there were no significant differences in the other sub-dimensions (p> 0,05). Accordingly, the age group in which the Physical function score has the highest average is determined as "<26" and the age group in which the Mental function score has the highest average is determined as "31-35".

Examining the difference in the quality of life summary scores according to age groups (Table 7), while there was significant difference in Physical Health summary scores ( $p < 0,05$ ), there was no significant difference in Mental Health summary scores ( $p > 0,05$ ). Accordingly, the age group in which the Physical Health summary scores has the highest average is determined as ">40".

While there were significant differences in the quality of life sub-dimensions Physical function, and Vitality between Body Mass Index groups ( $p < 0,05$ ), there were no significant differences in the other sub-dimensions ( $p > 0,05$ ). Accordingly, teachers having the highest average physical function scores were in the normal body mass index group and the teachers having the highest average vitality scores were in the obese group.

When the difference between participants' body mass index groups and quality of life summary scores were examined (Table 9), mental health summary scores were found to be significantly different ( $p \leq 0,05$ ). However, there was no significant difference in physical health summary scores ( $p > 0,05$ ). According to this, the body mass index group which has the highest average of the mental health summary score was determined as obese teachers.

Table 9. Comparison of Quality of Life Summary Scores according to Body Mass Index Groups

Quality of Life Summary Scores	Body Mass Index (kg/m <sup>2</sup> )	N	$\bar{x} \pm S.D$	P
Physical Health	<18,5 (Thin)	9	45,44±8,23	0,294
	18,5-24,9 (Normal)	315	49,71±10,15	
	25-29,9 (Overweight)	146	50,97±9,66	
	≥30 (Obese)	4	47,81±12,01	
Mental Health	<18,5 (Thin)	9	42,66±12,25 <sup>p</sup>	0,05*
	18,5-24,9 (Normal)	315	50,16±10,09 <sup>a</sup>	
	25-29,9 (Overweight)	146	49,86±9,53 <sup>a</sup>	
	≥30 (Obese)	4	58,40±8,76 <sup>a</sup>	

\* $p \leq 0,05$ , ab: the differences between the groups are shown in different letters.

## Discussion and conclusion

Socio-economic and cultural problems brought about by distorted construction, immobility and the rapid increase of urbanization have changed the health problems of people. Among the factors that negatively affect the quality of life, the presence of a sedentary life style has an important role (Raitakari et al., 1994). A sedentary lifestyle emerges with many health problems (Abu-Omar and Rütten, 2008). The existence of a relationship between physical activity and quality of life has been a subject of interest to scientists in recent

years. Especially in this respect, studies carried out in the field of health attract attention. However, there are studies in which the relationship between physical activity and quality of life varies according to various variables (gender, BMI, age, etc.) (Acre et al., 2006; Zorba, 2006; Shibata et al., 2007). When the physical activity levels of the teachers participating in the research are examined; it was found that 39% were inactive, 50,8% were minimally active, and 10,2% were very active (Table 1).

When the quality of life sub-dimensions are examined according to the teachers' physical activity level classification; it was determined that physical function and physical role sub-dimensions were increased whereas pain threshold was decreased ( $p < 0,01$ ); despite that there was no difference in the other sub-dimensions. According to this, teachers with high physical activity level have high physical function and physical role sub-dimension scores, but low perceived pain scores (Table 2,  $p < 0,01$ ). This suggests that physical activity may play a more active role in the daily work of teachers and may also reduce their perceived pain levels. In addition, when the quality of life summary scores of the teachers according to their classification of physical activity levels are examined, it has been determined that there is a significant difference in Physical health summary scores. Accordingly, it was determined that the minimal active and highly active teachers had higher physical health averages than the inactive teachers (Table 3;  $p < 0,001$ ).

Many studies in the literature have reported that physical activity and exercise have positive effects on quality of life. (Rejeski and Mihalko, 2001; Bize et al., 2007; Motl and McAuley, 2010). Murathan et al. (2013) found a positive relationship between physical activity level and healthy lifestyle in 1260 university students. In a survey of adults in Colombia, the relationship between physical activity and quality of life of individuals was examined and only a positive relationship was found between gait and quality of life (Blacklock, 2007). Kırgız et al. (2014) found that the quality of life of instructors at the School of Physical Education and Sports was high, indicating that this may be related to the effort they spend in practical courses.

Studies regarding quality of life have reported differences between genders (Bisegger et al., 2005; Michel et al., 2009). The Physical function, Physical role and Mental role sub-dimension averages of male teachers were found higher than female teachers. On the other hand, it was found that the sub-dimension averages of Pain and General Health Perception were higher in female teachers ( $p < 0,05$ ). There was no difference in the other sub-dimensions ( $p > 0,05$ ; Table 4). In addition, when summary quality of life scores according to gender were examined, it was found that the physical health levels of males were higher than females ( $p < 0,001$ ), whereas there was no difference in mental health levels ( $p > 0,05$ ; Table 5).

Genç et al. (2011) reported that men had higher physical activity than women and that this increased the quality of life in men. When the quality of life sub-dimensions were examined according to the age classification of participants in the study, it was found that there were significant differences in physical function and mental function sub-dimensions ( $p < 0,01$ ) and no differences were present in the other sub-dimensions ( $p > 0,05$ ).

According to these results, it was determined that the age group with the highest physical function average was  $> 26$  and the age group with the highest mental function sub-dimension was the 31-35 age group (Table 6). In addition, when quality of life summary scores were examined, it was found that there was significant difference in physical health scores ( $p < 0,05$ ), while there was no difference in mental health scores ( $p > 0,05$ ). According to these results, it was determined that the highest physical health score was among the  $>40$  age group teachers (Table 7).

Finally, when the difference between the body mass index groups and the quality of life sub-dimensions according to the classification of WHO is examined, it was found that there were significant differences in Physical function and Vitality sub-dimensions ( $p < 0,05$ ), while it was found that there were no significant differences in the other sub-dimensions ( $p > 0,05$ ). According to this, it was determined that there was a significant difference between the teachers with normal body mass indexes and the obese teachers and between the overweight and obese teachers ( $p < 0,05$ ).

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When the multiple comparison of the vitality scores according to age was examined, it was found that there were differences between the teachers with low body mass indexes and the obese teachers ( $p < 0,05$ ), while there were no significant differences between the other groups ( $p > 0,05$ , Table 8). When the quality of life summary scores were examined according to the body mass index groups of participants, it was determined that there was significant difference in the mental health summary scores ( $p \leq 0.05$ ), while there was no difference in physical health summary scores ( $p > 0,05$ ). According to this, it was determined that the teacher group with the highest mental health score was obese teachers. Participation in physical exercise in the society is related to the social environment and self-confidence. Obese individuals may feel psychologically oppressed in participating in exercise and thus they may have a low level of physical activity participation. As a result; it was found that the physical activity levels of the teachers in general were low. However, it has been found that as physical activity levels of teachers increase, physical health summary scores increase, whereas mental health summary scores do not change.

Teachers should be encouraged to participate in more physical activity. In addition, strategies should be developed to increase the quality of life of teachers, female teachers in particular should be more informed about physical activity than male teachers. Thus, teachers can be protected from illness caused by inactivity for a longer time and quality of life can be increased.

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## PROCJENA RAZINE TJELESNE AKTIVNOSTI I KVALITETA ŽIVOTA NASTAVNIKA

### **Sažetak**

Cilj ovog rada je procijeniti razinu tjelesne aktivnosti i kvalitetu života nastavnika. U ovoj studiji sudjelovalo je 474 dobrovoljnih učitelja [muških ( $n = 276$ ) i žena ( $n = 198$ )]. Dozvola je dobivena od Pokrajinske uprave nacionalnog obrazovanja na početku istraživanja. Učitelji koji su sudjelovali u ovom istraživanju primijenili su kratki oblik tjelesne aktivnosti i SF-36 skalu kvalitete života (8 dimenzija, 2 sumarna skora), kao i osobne podatke, uključujući dob, spol, visinu i tjelesnu težinu. T-test za nezavisne uzorke korišten je za usporedbu varijabli parnih skupina kao i jednosmjerna ANOVA za usporedbu više od dvije varijable kod skupina. Tukey test je korišten za određivanje razlike između više skupina. Kada je razmatrana razlika između dobnih skupina sudionika, razine spolova i razina tjelesne aktivnosti i sažetak bodova kvalitete života, statistički značajne razlike su utvrđene u fizičkim zdravstvenim rezultatima ( $p < 0,05$ ), a statistički značajna razlika nije utvrđena u rezultatima mentalnog zdravlja ( $p > 0,05$ ) nastavnika. Utvrđeno je da povećana razina tjelesne aktivnosti povećava rezultate skora tjelesnog zdravlja. Pored toga, kada se ispituje razlika između indeksa tjelesne mase i rezultata skora kvalitete života, nije bilo statistički značajne razlike u sažetim rezultatima mentalnog zdravlja ( $p > 0,05$ ). Kao rezultat toga, otkriveno je da povećana razina tjelesne aktivnosti povećava fizičke zdravstvene rezultate skora nastavnika, ali ne mijenja rezultate skora mentalnog zdravlja.

**Ključne riječi:** turski nastavnici, kvaliteta života, razine aktivnosti, mentalno zdravlje, tjelesno zdravlje.

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