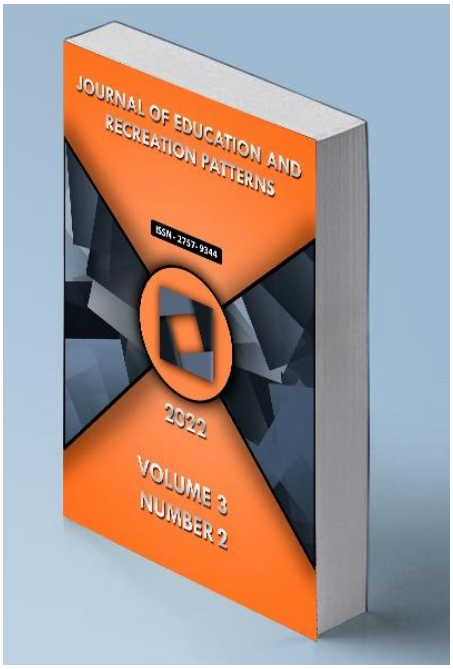

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A Study on the Effects of University Students' Motivation to Participate in Physical Activity on Quality of Life: The Case of Kırıkkale University

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ABSTRACT
One of the simplest ways to eliminate the negative effects of a less active life with the developing technology and to raise the standards of life quality is physical activity and exercise. In this study, it was aimed to examine the effects of university students' motivation to participate in physical activity on quality of life along with its sub-dimensions. A total of 400 university students, 212 male and 188 female, who were studying at various faculties and higher schools in Kırıkkale University in 2022, voluntarily participated in this research. Two different scales were applied to the participants. Physical activity participation motivation scale and quality of life scales were applied to the participants. In addition, the correlation between University Students' Motivation to Participate in Physical Activity and their responses to the Quality of Life Scale and the sub-dimensions of these scales were examined.

A correlation was found between university students' Motivation to Participate in Physical Activity sub-dimensions and some of the Quality of Life sub-dimensions. $r=0.160$, ($p<0.01$). Considering the genders, there was no correlation for male students. $r=0.010$, ($p>0.05$). There is a correlation between 'Environmental Reasons', one of the sub-dimensions of Motivation to Participate in Physical Activity, and 'Physical Health', one of the sub-dimensions of Quality of Life, for female students. $r= -0.149$, ($p<0.05$). It was determined that there were significant relationships between university students' motivation to participate in physical activity and their quality of life in terms of some sub-dimensions.

Keywords: Motivation, Physical Activity, Quality of Life

INTRODUCTION

Universities are one of the most important social areas of modern societies. Universities are not only students, Administrative and Academic staff busy with education, training and academic activities as whole, but also, they are also social, cultural and physical living spaces. Both the academic success of university stakeholders and their potential for work efficiency are closely related to their feeling happy in their daily work pace and their high physical and psychological motivation. There is no doubt that university students take the most important place among these stakeholders. With this awareness, University Campus areas are equipped with various sports fields, recreation centers and some physical activity fields. In addition, they are transformed into social living spaces where artistic and cultural activities can be carried out.

The inactivity, stressful lifestyle, irregular and unhealthy diet that emerged with the development of technology adversely affect human life, leading to the emergence of various diseases and disorders, resulting in the formation of an unhealthy, unhappy and low quality of life society. Regular physical activity, exercise and sports help to solve most of these problems (Yılmaz and Ulaş, 2016).

Physical activity: It is the expenditure of energy as a result of the movement of the body through the skeletal muscles. It is the amount of movement an individual makes on a daily basis (Rowland & Freedson, 1994). It is defined as bodily movements that require energy expenditure above the basal level of energy spent as a result of contraction of skeletal muscles (Özer, 2001). When look at the literature, exercise is accepted as a subclass of physical activity, and various activities, sports, games and exercises done during the day are also considered as physical activity (Karaca, 1998). For reasons such as weight control, healthy life, socialization, coping with stress, preventing diseases, forgetting daily problems, wanting to avoid bad habits, getting away from negative thoughts, having fun, developing physical self, making use of free time, developing healthy lifestyle behaviors, increasing self-confidence. Furthermore, participating daily physical activity will subsequently reduce avoidable chronic diseases and improve public health (Hudson et al. 2022). Based on the fact that people cannot break away from physical activities because of this. In this context, one of the factors that increases the effectiveness of the individual's purpose of participating in physical activity is motivation. Motivation is the force that moves the person towards his/her goals or objectives and directs the person to achieve the purpose or goal in the process of taking action (Tekkurşun Demir, 2018).

Variables such as good physical appearance, proportionality of height and weight, satisfaction with physical characteristics, and coping with stress affect the person positively in a motivational way. It can be said that participation in physical activity is effective in this positive motivational mood that an individual will have (İlhan, 2010). There are many definitions in the literature on Quality of Life. Quality of Life has been regarded as synonymous with various terms in the literature. Most of the researchers used the concept of Quality of Life synonymously with life satisfaction, life satisfaction and happiness, and defined Quality of Life as happiness, satisfaction and harmony (Bayrak, 2011). It is the term that expresses the general welfare and access level of individuals or societies. Quality of Life data; It is used in a wide range of fields including international development, health, politics and employment (Öztürk, 2005). Quality of Life has many components: benefiting from health and education services, adequate nutrition and protection, a healthy environment, right, opportunities and gender equality, participation in daily life, dignity and security. In addition, many physical activities lead students to achieve good academic outcomes and are positively reflected in their overall grade point average (Kim et al. 2022).

All of these components are individually important; Even the lack of one of them hurt "I'm living a quality life's feeling. Looking at the definitions of Quality of Life, it is seen that researchers have brought different definitions to the concept of Quality of Life. While some of these definitions explain Quality of Life with environmental features, some with economic features, some explain it with sociological and psychological features. The purpose of this research; The aim of this study is to examine how the motivation of students, one of the most important stakeholders of universities, to participate in physical activity affects their perceptions of their quality of life. In addition, 'how do students differ according to their gender?' an answer to the question was also sought. There are significant correlations between university students' motivation to participate in physical activity and their quality of life.

METHOD AND MATERIALS

Population and Sample

A total of 400 university students, 212 male and 188 female, who were studying at various faculties and higher schools in Kırıkkale University in 2022, voluntarily participated in this research.

Data Collection Tools

Two different scales were applied to the participants. The subjects were selected at different times and by random method. First, the participants were administered the Motivation Scale for Participation in Physical Activity (MSPPA) questionnaire. The validity and reliability study of this scale was carried out by Tekkurşun Demir and Cicioğlu (2018). The scale is a Likert type scale. It consists of sixteen questions and each question is given a score between 1 and 5. The maximum score that can be obtained from the scale is 80. he scale includes "Individual Causes" (items 1, 2, 3, 4, 5, 6), "Environmental Causes" (items 7, 8, 9, 10, 11, 12) and "No reason" (items 13, 14, 15, 16.) consists of 3 factors named as. The 3rd, 9th, 13th, 14th, 15th, and 16th questions shown in the scale were given as reversed items. Tekkurşun Demir and Cicioğlu (2018) found the Cronbach Alpha scores of the scale to be .89 for the individual causes sub-dimension, .86 for the environmental causes and .82 for the No-Cause sub-dimension. The scale's evaluation is as follows:

Options	Points	Score Interval	Scale Evaluation
Absolutely I agree	5	65-80	Very high
I agree	4	49-64	High
I'm undecided	3	33-48	Middle
I do not agree	2	17-32	Low
I strongly disagree	1	1-16	Very low

Secondly, the World Health Organization Quality of Life Scale-Short Form (WHOQOL-BREF) questionnaire was applied to the participants. This scale was developed by the World Health Organization (WHO) and a comprehensive tool that measures well-being and allows for cross-cultural comparisons is the scale. As a result of pilot studies carried out in 15 centers around the world, WHOQOL-100 with 100 questions and WHOQOL-BRE consisting of 26 questions selected from among were created. The WHOQOL-BREF scale consists of 26 questions, one of which is the general perceived quality of life and the other two questions about the perceived health status, and 5 areas: general, physical, psychological, social relations and environmental areas. There is one more question about the environment in the Turkish adaptation of the scale and it includes 27 questions in total. The sub-dimensions of the scale

are General Health Status: 1st and 2nd questions, Physical Health: 3,4,10,15,16,17 and 18th questions, Psychological: 5,6,7,11,19 and 26th questions, Social Relations: 20, 21 and 22 questions and Environment consists of 8, 9, 12, 13, 14, 23, 24 and 25 questions. The sum of the questions in the relevant sections gives the subject's raw score for the relevant section. Percentiles of the scale are calculated separately for each sub-dimension with the formula (Subject's raw score) - (The lowest possible score for that parameter) / (Score range of that sub-parameter) x 100.

Data Analysis

Analysis of the data was done in SPSS (IBM SPSS Version 26) program. For each of the scales used, the mean values and standard deviations were calculated according to the sub-dimensions of the scales and the gender of the subjects. In addition, the correlation (we used Pearson) between University Students' Motivation to Participate in Physical Activity and their responses to the Quality of Life Scale and the sub-dimensions of these scales were examined.

FINDINGS

According to the answers of 400 university students participating in the study to the applied scales.

Table 1. Distribution of University Students' Answers to the Scale of Motivation to Participate in Physical Activity into the Sub-Dimensions

Motivation	Total (n=400)		Male (n=212)		Female (n=188)	
	Mean	Sd	Mean	Sd	Mean	Sd
Individual Reasons	20,83	3,49	20,26	3,55	21,58	3,27
Environmental Reasons	19,52	4,32	19,61	4,14	19,39	4,57
No Reasons	7,85	3,49	8,01	3,39	7,63	3,63
Motivational to Participate in P.A	48,19	5,91	47,88	5,66	48,60	6,22

The motivation levels for participation in physical activity were determined to be average (48.19/16=3.01) for all students considering the number of questions. Considering the number of questions for male students, the average was determined as (47.88/16=2.99). Considering the number of questions for female students, the average was determined as (48.60/16=3.04). Considering the sub-dimensions of motivation to participate in physical activity, the highest average was determined as (20.83/6=3.47) in the individual reasons sub-dimension, considering the number of questions for all students. Considering the genders, in the sub-dimensions of motivation to participate in physical activity, the highest average was determined as (20.26/6=3.38) in the individual reasons sub-dimension, considering the number of questions for male students. For female students, the average was determined as (21.58/6=3.60) considering the number of questions.

Table 2. Distribution of University Students' Answers to the Quality of Life Scale into the Sub-Dimensions

Quality of Life	Total (n=400)		Male (n=212)		Female (n=188)	
	Mean	Sd	Mean	Sd	Mean	Sd
General Health Condition	5,70	1,30	5,69	1,27	5,70	1,35
Physical Health	20,89	3,93	20,79	4,05	21,02	3,76
Psychological	19,45	3,51	19,34	3,63	19,60	3,36
Social Relationships	10,14	2,81	10,17	3,08	10,10	2,40
Environmental	26,01	5,26	25,64	5,17	26,51	5,36
Quality of Life Total	85,27	13,44	84,64	13,70	86,12	13,07

Considering the number of questions for all students in the Quality of Life scale, the average was determined as (85.27/26=3.28). Considering the number of questions for male

students, the average was determined as (84.64/26=3.26). Considering the number of questions for female students, the average was determined as (86.12/26=3.31). Considering the Quality of Life sub-dimensions, the highest average was determined as (10.14/3=3.38) for all students in the social relations sub-dimension, considering the number of questions. Considering the genders, the highest average in the sub-dimensions of quality of life was determined as (10.17/3=3.39) in the social relations sub-dimension, considering the number of questions for male students. For female students, the average was determined as (10.17/3=3.37) considering the number of questions.

Table 3. Correlation relationship between University Students' Motivation to Participate in Physical Activity and their Responses to the Quality of Life Scale and the Sub-Dimensions

		General Health C.			Physical Health			Psychological		
		r	r^2	p	r	r^2	p	r	r^2	p
Total	**Individual R.**	**0,176****	0,031	**0,001**	-0,059	0,004	0,235	0,032	0,001	0,517
	Environmental R.	0,054	0,003	0,283	**-0,114***	0,013	**0,022**	-0,039	0,001	0,440
	No Reasons	**-0,105***	0,011	**0,036**	-0,051	0,003	0,310	0,017	0,000	0,735
Male	**Individual R.**	**0,213****	0,045	**0,002**	0.00	0,000	0,998	0,094	0,009	0,172
	Environmental R.	0,089	0,008	0,196	-0,078	0,006	0,256	-0,001	0,000	0,991
	No Reasons	-0,116	0,013	0,093	-0,032	0,001	0,645	-0,014	0,000	0,844
Female	**Individual R.**	0,119	0,014	0,103	-0,140	0,020	0,055	-0,042	0,002	0,564
	Environmental R.	0,012	0,000	0,873	**-0,149***	0,022	**0,041**	-0,079	0,006	0,282
	No Reasons	-0,088	0,008	0,230	-0,069	0,005	0,347	0,048	0,002	0,517

		Social Relationships			Environmental		
		r	r^2	p	r	r^2	p
Total	**Individual Reasons**	**0,160****	0,026	**0,001**	0,084	0,007	0,092
	Environmental R.	-0,018	0,000	0,723	0,055	0,003	0,270
	No Reasons	-0,035	0,001	0,480	0,028	0,001	0,582
Male	**Individual Reasons**	**0,214****	0,046	**0,002**	0,123	0,015	0,074
	Environmental R.	0,010	0,000	0,882	0,109	0,012	0,112
	No Reasons	-0,028	0,001	0,689	-0,030	0,001	0,666
Female	**Individual Reasons**	0,111	0,012	0,129	0,017	0,000	0,821
	Environmental R.	-0,046	0,002	0,534	-0,006	0,000	0,930
	No Reasons	-0,055	0,003	0,450	0,099	0,010	0,175

****Correlation is significant at the 0.01**
***Correlation is significant at the 0.05**

There is a correlation between university students' Motivation to Participate in Physical Activity sub-dimensions 'Individual Reasons' and 'General Health Status and Social Relationships' sub-dimensions of Quality of Life. r= 0,176 (p=0.01).

There is a correlation between university students' Motivation to Participate in Physical Activity sub-dimensions 'Environmental Reasons' and 'Physical Health' sub-dimensions of Quality of Life. r= - 0.114, (p=0.022).

There is a correlation between university students' Motivation to Participate in Physical Activity sub-dimension, 'No reason' sub-dimension and 'General Health Status' sub-dimension of Quality of Life. r= - 0.105, (p=<0.036).

Considering the gender of university students, no correlation was observed between male students' Motivation to Participate in Physical Activity sub-dimensions and Quality of Life sub-dimensions ($p>0,05$).

Considering the genders of university students, a correlation is observed between 'Environmental Reasons', which is one of the sub-dimensions of Motivation to Participate in Physical Activity, and 'Physical Health', which is one of the sub-dimensions of Quality of Life. $r= - 0.149$, ($p=<0.041$).

DISCUSSION

The main purpose of this study is to investigate whether university students' motivation to participate in physical activity has an effect on their perception of quality of life. In the literature, there are many studies on the subject for students. Some of them are Çakır (2019), Eriş and Anıl (2016), Kangal (2019), Öztürk (2005), Ren (2009), Sirgy et al. (2007) and Hazar et al. (2017).

The result in the Table 1 shows; It was concluded that the average of the total scores was at the 'moderate' level when compared to the scale score evaluations determined in the literature. The situation is the same when considering the genders too. However, the mean value of female students was found to be higher than that of male students, albeit with a small difference. In the literature, many studies have been observed in the opposite direction, that is, males are found to be higher or there is no significant difference between them like our study. Some of those; Çakır, (2019), Demir and Cicioğlu, (2019), Hazar et al., (2017) found that male and female students had similar physical activity levels in their studies and stated that no significant difference was found between the motivation scores of female and male students to participate in physical activity. Eriş and Anıl (2016) in their study examining the quality of life of university students, concluded that female students found the quality of university life more positive than male students. Ceker et al. (2013) concluded that participation in regular physical activity decreases depending on age in both men and women and stated that only in the 50-59 age group women are more active than men.

In addition, in the examinations of the sub-dimensions of physical activity, it was observed that the individual causes sub-dimension had the highest average for both genders. Kolukısa et al. (2019) in their study, they found that among the reasons for doing physical activity, the biggest participation, motivation, health and weight problem are in the first place.

The result in the Table 2 shows; According to the findings of our study, all of the students have an above-average quality of life satisfaction. In addition, it can be said that female students have higher quality of life satisfaction perceptions than male students. This result is parallel with many of the studies in the literature. For example, Ren (2009), in his study on college students, found that the satisfaction level of female students with their lives was significantly different from that of males. Kangal (2009) concluded that there is a significant difference in favor of female students in terms of gender in his university quality of life research on Akdeniz University students.

The result in the Table 3 shows; the findings of our study show that there is a correlation between the 'Individual Reasons' sub-dimension of Motivation to Participate in Physical Activity and the 'General Health Status and Social Relationships' sub-dimensions of Quality of Life ($p<0.01$). This situation shows parallelism with similar studies in the literature. Yilmaz et al. (2016) observed in their study that health and physical appearance are two important criteria for women to do physical activity.

One of the findings of this study is that there is a correlation between the 'Environmental Reasons' sub-dimension, which is one of the sub-dimensions of Motivation to Participate in Physical Activity, and the 'Physical Health' sub-dimension, which is one of the sub-dimensions of the Quality of Life ($p<0.05$). It can be said that there are similar results in the literature too. Murcia et al. (2007) concluded in their study that there was a significant difference between enjoying physical activity and frequency of doing sports. They found that there is a positive effect between enjoying sports activity and the frequency of doing sports, and as the frequency of doing sports increases, the participation in more physical activities also increases. Bize et al. (2007) as a result of their study, they determined that there is a significant relationship between the level of physical activity stated by the person and the health-related quality of life. Sirgy et al. (2007) stated in their study that university students' active participation in sports activities at school is highly correlated with the perception of university quality of life. Our study shows parallelism with the aforementioned studies.

Another result we have reached is that there is a correlation between 'Environmental Reasons', one of the sub-dimensions of Motivation to Participate in Physical Activity, and 'Physical Health', one of the sub-dimensions of Quality of Life, when the gender of university students is considered ($p<0.05$). in their study on nurses, they concluded that despite the existence of factors that negatively affect the quality of life such as age, gender, presence of chronic disease, adequate physical activity positively affects the quality of life of nurses. This study supports our findings.

RESULT

As a result, the motivation to participate in physical activity directly affects the quality of life of university students. Considering the sub-dimensions of motivation to participate in physical activity, significant relationships are observed in students' perceptions of quality of life. Like many studies in the literature, this study showed that motivation to participate in physical activity positively affects individuals' quality of life and satisfaction levels. Young individuals who move away from physical activity due to factors such as constantly increasing technology use and digital addiction are negatively affected in terms of their quality of life and satisfaction. Despite these bad conditions, students' physical activity motivation is above average values. Likewise, their satisfaction with quality of life is also above the average values.

Regarding the environmental reasons that will increase the motivation of university students to participate in physical activity, the areas where they can exercise should be increased, such as sports facilities and recreation areas, especially in campus areas and in areas that students can easily reach. Such studies should be carried out on wider participation and not only university students, but all individuals in these age groups, to determine the motivation of the young generation to participate in physical activities, and activities that increase this motivation should be supported. Because participation in physical activities directly affects people's quality of life and the satisfaction they feel from life.

Limitations and Recommendations

This study was limited to Kırıkkale University students studying at different faculties in 2022.

Future studies should be done more comprehensively by increasing the number of participants. In addition, the age groups and academic achievements of the participants should also be considered.

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