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Investigation of the Relationship Between High School Students' Level of Participation in Recreation Activities and Their Time Management

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Abstract

This study aimed to examine the relationship between recreation participation levels and time management of high school students studying in different high schools. In the study, the relational screening model was used as part of the survey model. The data collection tool of the study consisted of three parts: personal information form, "Recreation Participation Scale" developed by Procidano and Heller (1983) and adapted into Turkish by Sevil (2015) and "Time Management Scale" developed by Britton and Tesser (1991) and translated into Turkish by Alay and Koçak (2002). The study group consisted of students of Incirliova Sports High School, Nazilli Science High School, Bozdoğan İsmet Sezgin Vocational and Technical Anatolian High School and Bozdoğan Anatolian High School in Aydın province in the 2022-2023 academic. Statistically, frequency analysis, reliability coefficient calculations, Pearson correlation analysis and Manova analysis were performed. The analyses were performed by adhering to a 95% confidence interval. A statistically significant difference was detected between the participants' recreational activity and gender, grade and doing sport variables, the cognitive activity sub-dimension and gender variable, the mean score of recreation participation and doing sport variable, and the time management of the participants and gender, high school type, income and doing sport variables ($p<0.05$). As a result, high school students have moderate levels of participation in recreational activities and time management. Participation of the high school students in recreational activities also decreased as their time management levels increased.
Keywords: Recreation, Participation, Time, Management, Student

Lise Öğrencilerinin Rekreasyon Aktivitelerine Katılım Düzeyleri ile Zaman Yönetimi Arasındaki İlişkinin İncelenmesi

Öz

Bu çalışma, farklı lise türlerinde eğitim gören lise öğrencilerinin rekreasyon katılım düzeyleri ile zaman yönetimleri arasındaki ilişkinin incelenmesini amaçlamıştır. Araştırmada, tarama modeli kapsamında ilişkisel tarama modeli kullanılmıştır. Araştırmanın veri toplama aracı, kişisel bilgiler formu, Procidano ve Heller (1983) tarafından geliştirilen Türkçe uyarlaması Sevil (2015) tarafından yapılan "Rekreasyon Katılım Ölçeği" ve Britton ve Tesser (1991) tarafından geliştirilen, Alay ve Koçak (2002) tarafından Türkçe 'ye geçerliliği ve güvenirliliği yapılan "Zaman Yönetimi Ölçeği" olmak üzere üç kısımdan oluşmuştur. Çalışma grubunu, 2022-2023 Eğitim-Öğretim döneminde Aydın ilinde bulunan İncirliova Spor Lisesi, Nazilli Fen Lisesi, Bozdoğan İsmet Sezgin Mesleki ve Teknik Anadolu Lisesi ile Bozdoğan Anadolu Lisesi öğrencileri oluşturmuştur. İstatistiksel açıdan, frekans analizi, güvenirlik katsayısı hesaplamaları, pearson korelasyon analizi ve Manova analizi yapılmıştır. Analizler, %95 güven aralığına bağlı kalınarak yapılmıştır. Katılımcıların rekreasyonel aktivite ile cinsiyet, sınıf düzeyi ve spor yapma değişkenlerinde, bilişsel aktivite alt boyutu ile cinsiyet değişkeni arasında, rekreasyon katılım ortalama puanı ile spor yapma değişkeninde, katılımcıların zaman yönetimi ile cinsiyet, lise türü, gelir ve spor yapma değişkenlerinde istatistiksel yönden anlamlı farklılaşma olduğu görülmüştür ($p<0.05$). Sonuç olarak lise öğrencilerinin rekreasyon aktivitelerine katılım düzeyleri ve zaman yönetimlerinin orta düzeyde olduğu tespit edilmiştir. Ayrıca katılımcıların zaman yönetimi düzeyi arttıkça rekreasyon aktivitelerine katılım seviyelerinin azaldığı belirlenmiştir.
Anahtar Kelimeler: Rekreasyon, Katılım, Zaman, Yönetim, Öğrenci

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INTRODUCTION

Nowadays constantly changing and rapidly developing world, the concept of time becomes more important day by day. In almost every period of our lives, in many cases, race against time and lack of time have started to pose serious problems. Technological developments and mechanization have given people more free time (Çulhadar et al., 2019). Time is a manageable and unique resource to which every individual has equal access, but also limited in utilisation due to inequalities caused by various factors (Al Khatib, 2014; Festjens & Janiszewski, 2015). The effective and efficient use of time plays an effective role in achieving results following the individual's goals, and for this purpose, time management efforts are required. Time management includes planning and implementation activities to realise goals and objectives most beneficially (Yavaş et al., 2012). Leisure, which emerges as a result of good planning and effective utilisation of time, can be described as a period in which the person participates in activities in line with his/her preferences and gets rid of all obligations (Huang et al., 2014).

In our age, lack of time is a common problem for almost all people. Especially in professional working life, people have to do many jobs in the limited time. Failure to complete the work that needs to be done at the end of a certain period of time pushes people to rethink how to use their time. Therefore, today, time management continues to be at the top of the list of personal development topics (Erdem et al., 2005; Özdemir et al., 2015).

Efficient utilisation of leisure increases the participation of individuals in recreational activities that can contribute to their rest, fun and personal development (Torkildsen, 2005). Individuals need recreational activities to refresh their minds and bodies and to utilise their leisure in a quality way when they are stuck between the intensity of working conditions and ordinary routine jobs. Recreation activities contribute to the life satisfaction levels of individuals with activities that they can enjoy, in which participants from all age groups can participate in individual or group activities, and also benefit personal development, mental health and physical health (Önen, 2022). As stated by Tinsley and Eldredge (1995), recreational activities also help individuals satisfy their psychological needs, feel good about themselves and improve their social behaviour. Making good use of free time not only increases work efficiency, but also helps maintain working order. It also contributes to revealing the creative characteristics of societies and their cultural development (Akyüz, 2015).

Nowadays, time management is a very important issue, especially for individuals with heavy work and school schedules. Especially high school students may find it difficult to maintain a balance between school work and social activities. In this case, making effective use of their leisure is very important for both their personal development and mental health. In this context, it has been a matter of curiosity how high school students utilise their leisure and how their time management skills affect their level of participation in recreational activities. In this study, the relationship between high school students' level of participation in recreational activities and time management was examined. This study can provide an important contribution for high school students to utilise their leisure time more efficiently and effectively. The hypotheses of our research consist of the following items. These are:

1. Is there a relationship between participants' level of participation in recreational activities and time management?

2. Is there a significant relationship between participants' participation in recreation activities and time management and demographic variables?

METHOD

Research Model

In this study, the relational survey model was used. The relational survey model aimed to examine the relationship between at least two variables without any intervention (Fraenkel & Wallen, 2009; Büyüköztürk et al., 2019).

Study Group

The study group consisted of students of İncirliova Sports High School, Nazilli Science High School, Bozdoğan İsmet Sezgin Vocational and Technical Anatolian High School and Bozdoğan Anatolian High School in Aydın province in the 2022-2023 academic year.

Data Collection Tools

The questionnaire forms were distributed to high school students face-to-face. Participants were informed about the data collection tools and the aim of the research. After the data collection process, 364 participants were included in the study. Then, as a result of the Mahalobis Distance analysis applied to the data collection tool, 17 questionnaire forms were found to show outlier values and these data were excluded from the analysis. In total, 347 questionnaire forms were taken into consideration.

Personal Information Form: In the study, the personal information form created by the researcher to determine the socio-demographic characteristics of high school students consisted of items prepared to determine the grade level, gender, high school type and sports participation status.

Recreation Participation Scale: The "Recreation Participation Scale", which was developed by Procidano and Heller (1983) and adapted into Turkish by Sevil (2015), consisted of 24 items and 4 sub-dimensions. The scale dimensions were 3 items of Recreational Activity, 8 items of Cognitive Activity, 9 items of Social Activity and 4 items of Productive Activity. There were no reverse-scored items in the scale. The scale was rated on a 5-point Likert scale. While the Cronbach alpha coefficient was .70 in the Turkish adaptation of the scale, it was found to be .87 in our study.

Time Management Scale: The "Time Management Scale" (TMS), which was developed by Britton and Tesser (1991) and adapted into Turkish by Alay and Koçak (2002), consisted of a total of 27 items and 3 sub-dimensions. The scale dimensions were the time planning sub-dimension consisting of 16 items, the time attitudes sub-dimension consisting of 7 items and time spending consisting of 4 items. On the scale, 8 questions were reverse scored. The scale was graded on a 5-point Likert scale. While the Cronbach alpha coefficient was .80 in the Turkish adaptation of the scale, it was found to be .90 in our study.

Research Publication Ethics

The ethical approval of this research was obtained by Aydın Adnan Menderes University Social and Human Sciences Research Ethics Committee considering Decision No. 12 with the number 31906847/050.04.04.04.-08-296 dated 03/03/2023.

Data Analysis

The data were analyzed in SPSS 25.0 package program. As a result of the kurtosis skew calculation applied to the data set, it was determined that the data showed a distribution between ±2 and it was decided to use parametric tests in the analysis (George & Malley, 2003). Pearson correlation analysis was used to determine the relationship between the recreation participation levels and time management of high school students. Moreover, Manova analysis, frequency analysis, and reliability coefficient calculations were performed to examine the difference between the recreation participation levels and time management of the participants and their personal characteristics. Analyses were conducted according to a 95% confidence interval.

RESULTS

Table 1. Demographic variables

Variables		**f**	**%**
Grade	9. Grade	78	22.5
	10. Grade	97	28.0
	11. Grade	80	23.1
	12. Grade	92	26.5
Gender	Female	148	42.7
	Male	199	57.3
High school type	Anatolian High School	101	29.1
	Labor School	73	21.0
	Sports High School	101	29.1
	Science High School	72	20.7
Sport participation	Yes	285	82.1
	No	62	17.9
Total		347	100

Table 1 showed the descriptive values related to the data. In categorical variables, the highest rates were 10th-grade students at the grade level (n=97), male students in the gender variable (n=199), Anatolian high school and sports high school students in the high school type variable (n=101), and participants who participate in activities were in the highest rate (n=285) (Table 1).

Table 2. Descriptive values related to the scales

Variables	x̄	S	Kurtosis	Skewness
Recreational Activity	3.27	.88	-.059	-.347
Cognitive Activity	3.34	.69	-.075	.265
Social Activity	3.62	.76	-.630	.790
Productive Activity	3.04	.85	.028	-.253
Participation	3,36	,61	-,300	1,234
Time Planning	3,07	,85	-,125	-,173
Time Attitude	2,83	,72	,115	,467
Time Spending	3,48	,87	-,833	,614
Time	3,07	,69	-,134	,549

(Participation = Recreation Participation; Time = Time Management)

It was determined that the participation levels of the participants in recreational activities were moderate in the scale total score and all sub-factors, while their time management levels were low in the time attitudes factor and moderate in all other factors and the scale total score (Table 2).

Table 3. Manova analysis results of high school students' recreation participation levels and time management according to gender variable

Dimensions	Gender	N	$\bar{X}$	S	F	P
Recreational Activity	Female	146	3.40	.88	5.729	.017*
	Male	199	3.17	.87		
Cognitive Activity	Female	146	3.44	.67	4.604	.033*
	Male	199	3.28	.70		
Social Activity	Female	146	3.71	.72	3.051	.082
	Male	199	3.56	.79		
Productive Activity	Female	146	3.10	.75	1.001	.318
	Male	199	3.00	.93		
Participation	Female	146	3.45	.54	4.946	.027*
	Male	199	3.30	.65		
Time Planning	Female	146	2.96	.82	4.604	.033*
	Male	199	3.15	.87		
Time Attitude	Female	146	2.75	.62	3.693	.055
	Male	199	2.90	.78		
Time Spending	Female	146	3.59	.81	3.944	.048*
	Male	199	3.40	.91		
Time	Female	146	2.99	.60	3.008	.084
	Male	199	3.13	.74		
Wilks Lamda=.940 F=2.378						

p<0.05* (Participation= Recreation Participation; Time= Time Management)

Manova analysis was performed between the participants' recreation participation and gender variable. As a result of the analysis, a significant difference was found in the recreational activity sub-dimension, cognitive activity sub-dimension and scale mean scores in favour of female participants ($p<0.05$). As a result of the Manova analysis between the time management of the participants and the gender variable, a significant difference was found in favour of male participants in the time planning sub-dimension and in favour of female participants in the time spending dimension ($p<0.05$) (Table 3).

Table 4. Manova analysis results of high school students' recreation participation levels and time management according to grade level variable

Dimensions	Grade	N	$\bar{X}$	SD	F	p	Bonferonni
Recreational Activity	[a]9. Grade	78	3.02	.75	3.647	.013*	d>a
	[b]10. Grade	96	3.27	.76			
	[c]11. Grade	80	3.30	.99			
	[d]12. Grade	91	3.46	.96			
Cognitive Activity	9. Grade	78	3.34	.69	1.872	.134	-
	10. Grade	96	3.37	.63			
	11. Grade	80	3.20	.77			
	12. Grade	91	3.45	.67			
Social Activity	9. Grade	78	3.60	.72	2.533	.057	-
	10. Grade	96	3.58	.78			
	11. Grade	80	3.50	.76			
	12. Grade	91	3.81	.75			
Productive Activity	9. Grade	78	3.08	.76	.069	.977	-
	10. Grade	96	3.04	.88			
	11. Grade	80	3.05	.95			
	12. Grade	91	3.02	.83			
Participation	9. Grade	78	3.33	.59	1.605	.188	-
	10. Grade	96	3.36	.61			
	11. Grade	80	3.28	.64			
	12. Grade	91	3.47	.58			
Wilks Lamda=.804 F=2.167							

p<0.05* (Participation= Recreation Participation)

Manova analysis was performed between the recreation participation of the participants and the grade-level variable. As a result of the analysis, a significant difference was found only in the recreational activity sub-dimension (p<0.05). In the analysis conducted to determine between in which groups the significant difference was, the recreational activity levels of 12th-grade students were found higher than 9th-grade students (Table 4).

Table 5. Manova analysis results of high school students' recreation participation levels and time management according to grade level variable

Dimensions	Grade	N	$\bar{X}$	S	F	p	Bonferonni
Time planning	9. Grade	78	3.09	.79	1.724	.162	-
	10. Grade	96	3.08	.80			
	11. Grade	80	3.21	.95			
	12. Grade	91	2.92	.86			
Time attitude	9. Grade	78	2.85	.69	.252	.860	-
	10. Grade	96	2.80	.78			
	11. Grade	80	2.89	.76			
	12. Grade	91	2.81	.66			
Time spending	9. Grade	78	3.65	.75	1.403	.242	-
	10. Grade	96	3.45	.79			
	11. Grade	80	3.39	.94			
	12. Grade	91	3.44	.99			
Time	9. Grade	78	3.11	.61	1.201	.309	-
	10. Grade	96	3.07	.70			
	11. Grade	80	3.15	.77			
	12. Grade	91	2.96	.66			
Wilks Lamda=.884 F=1.554							

p<0.05*(Time= Time Management)

As a result of the Manova analysis between the time management of the participants and the grade level variable, no significant difference was found in the scale mean score and three sub-dimensions (p>0.05) (Table 5).

Table 6. Manova analysis results of recreation participation levels and time management of high school students according to high school type variable

Dimensions	High School Type	N	$\bar{X}$	SD	F	p	Bonferonni
Recreational Activity	Anatolian High School	101	3.31	.88	.342	.795	-
	Labor School	72	3.18	.83			
	Sports High School	100	3.29	.97			
	Science High School	72	3.29	.81			
Cognitive Activity	Anatolian High School	101	3.44	.62	1.308	.272	-
	Labor School	72	3.33	.75			
	Sports High School	100	3.25	.74			
	Science High School	72	3.36	.64			
Social Activity	Anatolian High School	101	3.74	.74	1.422	.236	-
	Labor School	72	3.54	.84			
	Sports High School	100	3.55	.80			
	Science High School	72	3.67	.64			
Productive Activity	Anatolian High School	101	3.05	.77	.398	.754	-
	Labor School	72	3.13	.97			
	Sports High School	100	3.02	.99			
	Science High School	72	2.99	.64			
Participation	Anatolian High School	101	3.44	.55	.878	.453	-
	Labor School	72	3.34	.70			
	Sports High School	100	3.30	.66			
	Science High School	72	3.37	.49			
Wilks Lamda=.874 F=1.697							

p<0.05* (Participation= Recreation Participation)

Manova analysis was performed between the time management of the participants and the high school-type variable. As a result of the analysis, a significant difference was found in the scale mean score and three sub-dimensions (p<0.05) (Table 6).

Table 7. Manova analysis results of high school students' recreation participation levels and time management according to high school type variable

Dimensions	High school type	N	$\bar{X}$	SD	F	p	Bonferonni
Time planning	(a) Anatolian High School	101	2.85	.78	3.946	.009*	b>a
	(b) Labor School	72	3.27	.85			
	(c) Sports High School	100	3.07	.89			
	(d) Science High School	72	3.17	.84			
Time Attitude	(a) Anatolian High School	101	2.70	.50	3.269	.021*	d>a
	(b) Labor School	72	2.89	.86			
	(c) Sports High School	100	2.78	.81			
	(d) Science High School	72	3.03	.68			
Time Spending	(a) Anatolian High School	101	3.65	.73	3.540	.015*	a>c
	(b) Labor School	72	3.47	1.01			
	(c) Sports High School	100	3.26	1.03			
	(d) Science High School	72	3.55	.58			
Time	(a) Anatolian High School	101	2.93	.53	3.153	.025*	d>a
	(b) Labor School	72	3.20	.77			
	(c) Sports High School	100	3.03	.77			
	(d) Science High School	72	3.19	.66			
Wilks Lamda=.874 F=1.697							

p<0.05* (Time= Time Management)

Manova analysis was performed between the time management of the participants and the high school-type variable. As a result of the analysis, a significant difference was found in the scale mean score and three sub-dimensions (p<0.05). As a result of the analysis to determine between which groups the significant difference was, it was determined that the scores of labor high school students were higher than those of Anatolian high school students in the time planning dimension, the scores of science high school students were higher than Anatolian high school students in the time attitudes dimension, the scores of Anatolian high school students were higher than sports high school students in the time spending dimension, and the scores of science high school students were higher than Anatolian high school students in the scale mean score. As a result of the Manova analysis between the recreation participation of the participants and the high school type variable, no significant difference was found in the scale mean score and four sub-dimensions (p>0.05) (Table 7).

Table 8. Manova analysis results of recreation participation levels and time management of high school students according to the variable of sports participation

Dimensions	Sport Participation	N	$\bar{X}$	SD	F	P
Recreational Activity	Yes	283	3.35	.88	12.301	.001*
	No	62	2.92	.82		
Cognitive Activity	Yes	283	3.38	.70	3.884	.050*
	No	62	3.19	.63		
Social Activity	Yes	283	3.34	.69	3.499	.062
	No	62	3.66	.75		
Productive Activity	Yes	283	3.46	.77	.059	.809
	No	62	3.05	.86		
Participation	Yes	283	3.02	.82	4.821	.029*
	No	62	3.40	.61		
Time Planning	Yes	283	3.21	.59	9.658	.002*
	No	62	3.00	.84		
Time attitude	Yes	283	3.37	.86	4.532	.034*
	No	62	2.80	.71		
Time spending	Yes	283	3.01	.74	.033	.856
	No	62	3.48	.87		
Time	Yes	283	3.46	.89	8.013	.005*
	No	62	3.02	.67		
Wilks Lamda=.937 F=2.507						

p<0.05* (Participation= Recreation Participation; Time= Time Management)

Manova analysis was performed between the recreation participation of the participants and the variable of sports participation. As a result of the analysis, a significant difference was found in favour of the recreational activity sub-dimension and scale mean score (p<0.05). Considering the mean scores, it was determined that the scores of the participants who participated in sports in the recreational activity dimension were higher than the participants who did not participate in sports, and the scores of the participants who did not participate in sports in the mean score of recreation participation were higher than the participants who participated in sports. As a result of the Manova analysis between the time management of the participants and the variable of doing sports, a significant difference was found in favour of those who participate in sports in time planning, time attitudes and time management mean scores (p<0.05) (Table 8).

Table 9. Correlation analysis results

Variable		1-Recreactional Activity	2-Cognitive Activity	3-Social Activity	4-Productive Activity	5-Participation
6- Time Planning	R	-.235**	-.267**	-.228**	-.132*	-.276**
	P	.000	.000	.000	.014	.000
7- Time attitude	R	-.124*	-.191**	-.201**	-.112*	-.211**
	P	.021	.000	.000	.038	.000
8- Time spending	R	.043	-.008	-.048	-.104	-.048
	P	.427	.888	.374	.054	.375
9-Time	R	-.198**	-.249**	-.231**	-.147**	-.269**
	P	.000	.000	.000	.006	.000

(Participation= Recreation Participation; Time= Time Management)

A negative, significant and low-level relationship was found between participants' time management and recreation participation levels (r=-.276); a negative, significant and low-level

relationship was found between time management and recreation activity (r=-.235), and a significant negative and low-level relationship between time management and cognitive activity was detected(r=-.267). Besides, a significant negative and low-level relationship was detected between time management and social activity (r=-.228), and a significant negative and very low-level relationship was detected between time management and productive activity (r=-.132). A negatively significant and low-level relationship was found between time attitudes and recreation participation levels of the participants (r=-.211); a negatively significant and very low-level relationship was detected between time attitudes and recreation activity (r=-.124), and a significant negative and very low-level relationship was detected between time attitudes and cognitive activity (r=-.191). Moreover, a significant negative and very low-level relationship was detected between time attitudes and social activity (r=-.201), and a significant negative and very low-level relationship was found between time attitudes and productive activity (r=-.112). A negatively significant and low-level relationship was detected between time planning and recreation participation levels of the participants (r=-.276); a negatively significant and low-level relationship between time planning and recreation activity (r=-.235), and a significant negative and low-level relationship between time planning and cognitive activity (r=-.267). Besides, a significant negative and low-level relationship was found between time planning and social activity (r=-.228), and a significant negative and very low-level relationship between time planning and productive activity (r=-.132) (Table 9).

DISCUSSION AND CONCLUSION

This study was conducted to examine the relationship between recreation participation levels and time management of high school students studying in different high school types.

In our study, a significant difference was found between the recreational participation of the participants and the gender variable in the recreational activity sub-dimension, cognitive activity sub-dimension and scale mean scores in favour of female participants. In the literature review, Gökmen and Şentürk (2022) found a significant difference between students' recreation participation and gender variable in their study on university students. Satılmış et al. (2022) examined the recreation awareness levels of the participants. They found that the total mean score of pleasure-entertainment, social success and self-improvement showed a significant difference in terms of gender variable. They also stated that the recreation awareness scores of female participants were higher than male participants. In the existing studies, it can be said that the reason why women's recreational participation was high was that they want to get away from the intensity of daily activities, to get away from mental fatigue and to be more sensitive than men in terms of giving importance to physical appearance**.** The results of the study conducted by Shibata et al. (2007) and Kayantaş et al. (2022) were similar. In the study conducted by Küçüközer (2021), it was revealed gender-based differences on the utilisation of leisure time by university students. In the study conducted by Türkmen (2021), unlike our research results, no significant difference was observed in the participation of females and

males in recreation activities. Demirel et al. (2021) did not find a significant difference between the gender of the participants and their awareness of recreational activities in their study. Moreover, studies conducted by Chow, 2005; Leep, 2018; Walker & Kono, 2018; Oerbeck, 2019 were examined and it was concluded that similar results to the study data were found in the literature.

As a result of the analysis of our study between time management and gender variable, a significant difference was found in favour of male participants in the time planning sub-dimension and in favour of female participants in the time spending dimension. When the relevant literature was examined, studies supporting our study were found. In the study conducted by Türkmen (2021), a significant difference was found according to gender and it was found that the time spending sub-dimension of female participants was higher than the time planning sub-dimension of male participants. Raymore (2002) examined the results of evaluating leisure activities in a research and found that participation in leisure was caused by incentives, encouragement and environmental conditions. When the study conducted by Güler (2018) was examined, a statistically significant difference was found in the views of physical education teachers on general time management according to gender variable. It was observed that the difference was in favour of female physical education teachers. Demirtaş and Özer (2007) found that there was a significant difference in the general time management and time planning sub-dimension of general time management. In contrast to our study, Gözel (2013) did not find a significant gender-related difference in the general time management (time planning, time attitudes and time spending) views of primary school teachers. In the study conducted by Çuhadar et al., (2019) on students, it was stated that students did not show significant differences in the sub-dimensions of leisure time management according to gender.

In our research, as a result of the analysis between the recreational participation of the participants and the grade level variable, a significant difference was found in the recreational activity sub-dimension. The mean scores of 12th-grade students were higher than 9th-grade students. Although there were studies in the literature that did not support the results of our study (Kaplan, 2016; Ünlü, 2010), there were studies in parallel with our study. In the study conducted by Kara and Yıldıran (2020), the level of participation in leisure exercise showed a significant difference when the grade level of the students was considered. The high recreation participation scores of 12th-grade students can be considered as the reason why their recreation participation scores were higher because they wanted to relieve university exam anxiety and spend time with their peers because they were senior students.

In our study, no significant difference was found between the time management of the participants and the grade variable as a result of the analysis. In the study conducted by Kaplan (2016) on high school students, no significant difference was found between time management and grade variable. In the study conducted by Eranıl and Özcan (2018) with high school students, no statistically significant difference was found between leisure time management skills and grade variables. Savlan and Gürkan (2021) did not find a statistically significant difference between students' grade variables and leisure time management scores in their study. These studies support our study and it can be said that the leisure time management of students in different classes was similar.

As a result of the analysis between the participants' recreation participation and the high school type variable, no significant difference was found, while a significant difference was found between their time management and the high school type variable in the scale mean score and in all three sub-dimensions. In the time planning dimension, vocational high school students had higher scores than Anatolian high school students. In the time attitudes dimension, the scores of science high school students were higher than Anatolian high school students, in the time spending dimension, the scores of Anatolian high school students were higher than sports high school students, and in the scale mean score, the scores of science high school students were higher than Anatolian high school students. In the study conducted by Öznur and Yıldıran (2020), it was observed that the level of participation in exercise in leisure differed and Anatolian high school students allocated more time to leisure time compared to students studying at labour and technical Anatolian high schools. In the study conducted by Kahraman et al. (2017), a significant difference was detected between the sub-dimensions when sports high school and Anatolian high school students were compared as a result of the leisure constraints measurement. These results were in parallel with our study.

In our study, a significant difference was found between the participants' recreation participation and the sport participation variable, and between their time management and the variable of sport participation. Looking at the mean scores, it was determined that the scores of the participants who participated in sports in the recreational activity sub-dimension were higher than the participants who did not participate in sports, and the scores of the participants who did not participate in sports in the mean score of recreation participation were higher than the participants who participated in sports. As a result of the analysis between the time management of the participants and the sport participation variable, a significant difference was found in favour of the participants who participated in sports in time planning, time attitudes and time management mean scores. In the study conducted by Öznur and Yıldıran (2020), it was stated that the leisure exercise levels of students who participated in sports were higher than the students who did not participate in sports. Rahimi Asiabi (2012) found that the exercise levels of people who do sports with a licence were higher than those who do not participate in sports with a licence in parallel with the results of our study. These results are in parallel with the results of our study. When the related literature was analysed, there were studies with different results from our study. In the study conducted by Savlan and Gürkan (2021), no significant difference was found between the participants' participation in recreation activities and their time management. When the study conducted by Geven (2022) was examined, no significant relationship was found between the total and sub-dimensions of the participants' recreation awareness scale and the variable of being an athlete. Çetinkaya, Uzun, Özdemir and Buyrukoğlu (2022) stated in their study that there was a significant relationship between the psychological experience sub-dimension of the scale sub-dimensions in the participation in physical activity related to leisure activity preference and that there was a significant positive relationship in the field of sportive recreation with the community at the recreational level of life satisfaction and health outcomes of the participants.

When the correlation analysis results were examined in our study, it was found that there was a negative, significant and low-level relationship between the time management and sub-dimensions of the participants and the levels of recreation participation and sub-

dimensions. Gökmen and Şentürk (2022) examined the relationship between participants' leisure participation and leisure time management in their study. It was determined that there were low and medium-level significant relationships between the scales and sub-dimensions. This result showed partial parallelism with our research.

The results of the research we conducted and the studies in the literature were similar, and various suggestions can be made following these results.

- To provide participation in recreational activities and leisure time management more efficiently, training/seminars on time planning, programming and time management can be organised.
- For the activities/activities to be conducted in a healthier way and for the time to be utilised in a positive way, it can be ensured that the activities are performed within the universities.
- To encourage participation in recreational activities, more opportunities can be provided by increasing the options that appeal to everyone.

Conflict of Interest: The statement that there is no personal or financial conflict of interest in the study or another statement explaining this situation must be used.

Declaration of Contribution of Investigators: Research Design by GD, AÇ, IS, Statistical analysis by GD; Preparation of the manuscript by AÇ, GD, IS; Data Collection by GD, AÇ.

Information on Ethics Committee Authorisation

Committee: Aydın Adnan Menderes University Social and Human Sciences Institute

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