International Journal of Sport Culture and Science

March 2025 : 13(1)

ISSN : 2148-1148

Doi : 10.14486/IntJSCS.2025.733



The Relationship Between Netlessphobia and Leisure Satisfaction: A Study on Students of the Faculty of Sports Sciences

Anıl SİYAHTAŞ¹, Cemal GÜLER²

¹Turkish Football Federation, Istanbul, Türkiye https://orcid.org/0000-0001-6477-7298

²Istanbul University-Cerrahpaşa, Istanbul, Türkiye https://orcid.org/0000-0002-0912-7732

Email: anil.siyahtas@hotmail.com, cemal.guler95@gmail.com

Type: Research Article (Received: 02.12.2024 – Accepted: 09.02.2025)

Abstract

The present study aimed to examine the relationship between netlessphobia and leisure satisfaction among students enrolled at the faculty of sport sciences, and to determine whether there were any differences according to their independent variables. The study group was comprised of students from Istanbul University-Cerrahpaşa Faculty of Sport Sciences who met the inclusion criteria (n=202) and were of a descriptive and relationship-seeking research type. The data were collected using the Personal Information Form, the Fırat Netlessphobia Scale (FNS) and the Leisure Satisfaction Scale (LSS). The suitability of the data collected for the sample group was evaluated using Confirmatory Factor Analysis (CFA). For normally distributed data, t-tests, ANOVA and Pearson correlation analysis were employed. The findings revealed that the average age of the students was 21.36(±5.18) and 50.5% of them were female. The variables of gender, age and weekly leisure duration were found to have no effect on both netlessphobia and leisure satisfaction. It was observed that the fear of netlessphobia was affected by the variables of daily internet usage time and frequently used technological devices. In addition, various sub-dimensions of leisure satisfaction were affected by independent variables such as class, department, income, and academic perception level. The study concluded that there was no relationship between netlessphobia and leisure satisfaction among students at the faculty of sport sciences. It is recommended that further investigation be conducted into the factors that may influence students' fear of netlessphobia in leisure.

Keywords: Netlessphobia, Fear of being without internet, Leisure satisfaction



Introduction

The remarkable evolution of technology has precipitated a shift in human behaviour, with an increasing reliance on the internet and social media platforms (Drago, 2015). The advent of new information technologies has had a profound impact on all aspects of daily life (Durmus Sarıkahya et al., 2024). However, in addition to the conveniences brought about by the rapid development of technology, some concerns have begun to emerge. One such situation is netlessphobia, which can be defined as 'the fear of being without the internet' (Gezgin & Türk Kurtça, 2024). This concept encompasses two distinct forms: individuals' excessive use of the internet and the anxiety experienced due to the lack of internet access in places where it is unavailable (Kanbay et al., 2021). The presence of symptoms such as constant internet usage, restlessness in the absence of internet access, and the pursuit of alternative internet-free activities are indicative of a netless phobia (Güney, 2017; Durmuş Sarıkahya et al., 2024). Those with netless phobia tend to spend the majority of their time online during the day. Such individuals habitually access their email accounts and consistently disseminate content from their social media profiles (Öztürk, 2015). In the absence of these activities, the individual experiences significant restlessness (Kadan, 2023). A review of the literature reveals that individuals who are unable to function without the internet are prone to developing a range of addictions and are at risk of experiencing a variety of psychological, social and physical issues (Batıgün & Hasta, 2010; Alaçam et al., 2015; Aslan, 2019; Tohumcu et al., 2019). It has been posited that the utilisation of the internet has become a pastime for individuals during their leisure time (Karakoç & Taydaş, 2013).

The term 'leisure' is defined as the period of time that individuals have after fulfilling their working and compulsory needs, which they then utilise for various activities (Türker et al., 2016). The level of satisfaction experienced by individuals is contingent upon the nature of the activity in which they engage. This sentiment is also referred to as leisure time satisfaction, which is characterised as a positive emotional state (Akay & Yaşartürk, 2023). It is of great importance to gain an understanding of leisure needs and satisfaction in order to gain awareness of how individuals choose leisure activities and how they continue to participate in these activities (Kim et al., 2024). In summary, leisure satisfaction can be defined as the level of enjoyment or satisfaction experienced by individuals with regard to their leisure activities. In order to achieve satisfaction with life in general, individuals must be satisfied in various areas of their lives. Leisure satisfaction is one such area (Zhao et al., 2024).

Leisure satisfaction, which is purported to be associated with numerous facets of life, constitutes a proximal determinant of subjective well-being (Schimmack, 2008). The objective of this study is to ascertain the extent to which satisfaction derived from leisure activities impacts internet usage. While this question remains unanswered, some studies have addressed similar issues. For example, in a study conducted by Khan and Hamad (2023), a negative relationship was identified between university students' leisure satisfaction and social media addiction. Furthermore, another study has demonstrated the beneficial impact of leisure time experiences on mobile phone addiction (Xia et al., 2024). The positive influence of leisure time satisfaction on technology-related addictions has led to the formulation of a hypothesis concerning its potential to influence the fear of being unable to function without the internet in individuals. Based on this, the present study aims to investigate the relationship between netlessphobia and leisure satisfaction.



Material and Method

Purpose and Type of Research

The present study was designed as a descriptive and correlational study with the objective of examining the correlation between netlessphobia and leisure satisfaction of students enrolled at the Faculty of Sport Sciences. In line with the determined purpose, answers were sought to the following questions.

Research Questions

- -What is the level of netlessphobia of the students studying at the faculty of sport sciences?
- -What is the level of leisure satisfaction of the students studying at the faculty of sport sciences?
- -Is there a difference between netlessphobia and leisure satisfaction of students studying at the faculty of sport sciences according to their independent variables?
- -Is there a relationship between netlessphobia and leisure satisfaction of students studying at the faculty of sport sciences?

Research Group

The study population comprised students enrolled at Istanbul University-Cerrahpaşa Faculty of Sport Sciences. The sample comprises students who met the inclusion criteria between October and November 2024. A total of 214 individuals were required for the research, with a 95% confidence interval and a 5% margin of error within the faculty of 480 students. The data collected through the face-to-face survey method were distributed to all students. Following the exclusion of individuals who did not meet the specified criteria, the study was completed with 202 students (n=202).

Inclusion Criteria

- Being a Turkish citizen,
- Over 18 years of age,
- At least 1 hour of leisure per week,
- Use the internet for at least 1 hour a day,
- To be an active student in the autumn term of the 2024-2025 academic year,
- Volunteering to participate in the research.

Table 1. Demographic characteristics of the participants

		F	%	X ±Sd
C 1	Male	100	49,5	
Gender	Female	Male 100 49 emale 102 50 grade 79 39 l grade 47 23 l grade 30 14 n grade 46 22 n and Sports Teaching 38 18 g Education 50 24 Ianagement 114 56	50,5	
	1st grade	79	39,1	
Cuada	2nd grade	47	23,3	
Grade	3rd grade	30	14,9	
	4th grade	46	22,8	
	Physical Education and Sports Teaching	38	18,8	
Department	Coaching Education	50	24,8	
	Sport Management	114	56,4	
Academic Perception	Low	6	3,0	



Level	Middle	108	53,5	_
	High	88	43,6	
	Income Less than Expense	43	21,3	
Income	Income Equals Expense	125	61,9	
	Income Exceeds Expense	34	16,8	
	1-5 hours	49	24,3	·
Weekly Leisure Period	6-10 hours	91	45,0	
	11-15 hours	38	18,8	
	16 hours and over	24	11,9	
	1 hours and less	9	4,5	
	2-4 hours	93	46,0	
Daily Internet Usage Time	5-7 hours	63	31,2	
	8 hours and over	37	18,3	
	Mobile phone	191	94,6	
	Computer or Other	11	5,4	
Age		·		21,36±5,18
Total		202	100,0	

Table 1 illustrates the distribution of personal information among the participants. The mean age of the participants was $21.36(\pm 5.18)$ years, and 50.5% were female. The participants were distributed as follows: 39.1% were in their first year, 56.4% were in the Department of Sport Management, 53.5% had an academic perception at the orda class, and 56.4% were in the Department of Sports Management. The average level was that 61.9% of the participants had an income equal to their expenses, 45.0% had free time between 6 and 10 hours per week, 46.0% used the internet between 2 and 4 hours per day, and the most frequently used technological tool was the mobile phone (94.6%).

Data Collection Tools

The Personal Information Form, Firat Netlessphobia Scale (FNS) and Leisure Satisfaction Scale (LSS) were employed as data collection instruments in the study.

The Personal Information Form was developed in accordance with the extant literature and comprises nine questions, eliciting information on gender, age, grade, income, department, academic achievement perception, weekly free time duration, daily internet usage time and frequently used technological tools during the day.

The FNS was developed by Kanbay et al. (2021) as a means of measuring the extent of netlessphobia in individuals. The scale comprises 12 items with responses recorded on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The Cronbach alpha reliability coefficient of the scale was calculated as 0.93. While the lowest score that can be obtained from the scale is 12, the highest score is 60 points. An increase in the score is interpreted as an elevated level of netlessphobia in the individual (Kanbay et al., 2021). The internal consistency coefficient of the current study was calculated as .91.

The LSS was developed with the objective of measuring the satisfaction level of individuals in their leisure (Beard & Ragheb, 1980). The scale was adapted into Turkish in 2011 and comprises six sub-dimensions. The sub-dimensions are as follows: psychological, educational, social, relaxation, physical and aesthetic. The scale comprises 24 statements, which are rated on a 5-point Likert scale (1 = almost never true, ..., 5 = almost always true). An increase in score is indicative of an increase in leisure time satisfaction. The internal consistency coefficients of the sub-dimensions of the scale were calculated as 0.77, 0.77, 0.76, 0.80, 0.79 and 0.79, respectively. The Cronbach Alpha value for the overall scale was found to be 0.90 (Gökçe & Orhan, 2011). In the current study, the internal consistency



coefficient for the overall scale was calculated as .94, while the sub-dimensions were calculated as .75, .85, .84, .87, .83, .88 respectively.

Validity and Reliability of the Scales

The validity and reliability of the scales used in this study were tested through the analysis of Confirmatory Factor Analysis and Cronbach's Alpha values. The results of this analysis are presented in Table 2.

Table 2: CFA results on the validity and reliability of the scales

Scale	$\Delta \chi^2/sd$	RMSEA	CFI	AGFI	GFI	IFI	α
FNS	2,06	,07	,96	,87	,91	,96	,91
LSS	1,97	,06	,92	,91	,90	,92	,94

The CFA was conducted with the objective of verifying the one-factor structure of the FNS and the six-factor structure of the LSS. It was understood that the FNS model fit indices (χ 2/df=2.06; RMSEA=0.07; CFI=0.96; AGFI=0.87; GFI=0.91; IFI=0.96) and the LSS model fit values (χ 2/df=1.97; RMSEA=0.06; CFI=0.92; AGFI=0.91; GFI=0.90; IFI=0.92) were within the excellent or acceptable limits and the model structures were confirmed. Cronbach alpha coefficients were calculated to assess the reliability of the scales. The internal consistency coefficients of the scales were found to be 0.91 and 0.94, respectively. The findings demonstrated that the FNS and LSS are valid and reliable measurement tools that can be utilised for this study.

Ethical Aspects of the Research

The conduct of this research was discussed at the meeting of the Istanbul University-Cerrahpaşa Social and Human Sciences Research Ethics Committee on 01.10.2024. Following this discussion, it was decided that the research was ethically appropriate and that the number 2024/443 should be assigned to it. The permission to use the scales and the consent of the participants were obtained, and the research was carried out in accordance with the ethical principles set out in the Declaration of Helsinki.

Data Evaluation

The data were analysed using the IBM SPSS 20 and AMOS 18 software programmes. Descriptive statistical techniques were employed in the course of the analyses. The initial step involved assessing the compatibility of the employed scales with the data. To this end, a Confirmatory Factor Analysis (CFA) was conducted. The following fit indices were taken as reference for the fit values that emerged in the CFA analysis: Chi-Square Goodness/Degree of Freedom (X2/df \leq 5), Root Mean Square Error of Approximation (RMSEA \leq ,08), Goodness of Fit Index (GFI \geq ,90), Comparative Fit Index (CFI \geq ,95) and Incremental Fit Index (IFI \geq ,90) (Schermelleh-Engel et al., 2003; Tabachnick & Fidell, 2013). The suitability of the tests to be used in the analysis of the data was evaluated based on the examination of skewness and kurtosis values. It was ensured that the values obtained were between ± 1 (Huck, 2012). Consequently, the t-test, ANOVA and Pearson correlation test were applied to analyse the normally distributed data. The difference between the groups was analysed by Tukey test. The research data were analysed within the 95% confidence interval, and the significance level was accepted as 0.05.

Findings

Table 3. Scale score distribution

Scale	Number of items	n	Ā	SD	Skewness	Kurtosis

Siyahtaş and Güler, The Relationship between	Siyahtaş and	Güler, The	Relationship	between
--	--------------	------------	--------------	---------

FNS	12	202	2,65	,76	,29	-,19
LSS	24	202	3,61	,61	-,18	,23
Psychological	4	202	3,42	,75	-,24	,03
Educational	4	202	3,68	,81	-,38	,01
Social	4	202	3,63	,77	-,35	,46
Relaxation	4	202	3,91	,73	-,62	,55
Physical	4	202	3,41	,82	-,09	-,20
Aesthetics	4	202	3,58	,76	-,19	,21

Table 3 presents the mean scores obtained from the total and sub-dimensions of the FNS and the LSS. The mean score for the total FNS was found to be 2.65 ± 0.76 . The mean total score of the LSS was found to be $3.61\pm.61$, with the highest mean score obtained in the 'Relaxation' sub-dimension (3.91 \pm .73) and the lowest mean score obtained in the 'Physical' sub-dimension (3.41 \pm .82). The skewness kurtosis values ranged between -.62 and .55.

Table 4: T-test results according to gender

	Gender	n	X	SD	t	р
FNS	Male	100	2,6358	0,80740	-,346	,729
rns	Female	102	2,6732	0,72484	-,340	,129
T CC	Male	100	3,6375	0,64499	5 00	557
LSS	Female	102	3,5862	0,59293	,589	,557
Psychological	Male	100	3,4325	0,74861	- ,079	,937
Psychological	Female	102	3,4240	0,76817	,079	,937
Educational	Male	100	3,7200	0,83958	,591	,555
Educational	Female	102	3,6520	0,79615	,391	,555
Costal	Male	100	3,7100	0,79433	1 200	105
Social	Female	102	3,5686	0,75137	1,300	,195
Relaxation	Male	100	3,8950	0,77946	-,326	,745
Kelaxation	Female	102	3,9289	0,69686	-,320	,743
Dhygiaal	Male	100	3,5000	0,89188	1 425	152
Physical	Female	102	3,3333	0,75398	1,435	,153
Aesthetics	Male	100	3,5675	0,80234	204	604
Aesthetics	Female	102	3,6103	0,73926	,394	,694

p<0.05*

Table 4 illustrates the results of the t-test conducted to assess the differences in the total scores and sub-dimensions of the FNS and the LSS between male and female participants. The findings indicate that there is no statistically significant difference between the total scores and sub-dimensions of the FNS and the LSS based on gender (p>0.05).

Table 5: ANOVA results according to grade level

	Class	n	Ā	SD	F	р	Tukey
	1st grade ^a	79	2,6076	0,83836			
FNS	2nd grade ^b	47	2,5922	0,68877	,740	,529	
FNS	3rd grade ^c	30	2,8278	0,62089	,740	,329	
	4th grade ^d 46 2,6866 0,79644						
_	1st grade ^a	79	3,6677	0,66513	_		
TOO	2nd grade ^b	47	3,4734	0,59774	2.000	102	
LSS	3rd grade ^c	30	3,4861	0,54341	2,088	,103	
	4th grade ^d	46	3,7382	0,57666			
	1st grade ^a	79	3,4272	0,83795			
Davohalagiaal	2nd grade ^b	47	3,3564	0,68909	,613	,607	
Psychological	3rd grade ^c	30	3,3583	0,69692			
-	4th grade ^d	46	3,5489	0,71999	_		



	1st grade ^a	79	3,7025	0,83116			
E1 4 1	2nd grade ^b	47	3,5798	0,76986	,747	,525	
Educational	3rd grade ^c	30	3,6083	0,83739	-		
	4th grade ^d	46	3,8152	0,83072	-		
	1st grade ^a	79	3,7816	0,79397			
Social —	2nd grade ^b	47	3,3989	0,76018	2774	042*	a>b
	3rd grade ^c	30	3,5333	0,64905	2,774	,043*	
	4th grade ^d	46	3,7065	0,78405			
D.1	1st grade ^a	79	3,9399	0,69823			
	2nd grade ^b	47	3,7926	0,75419	4,464	,005*	b <d< td=""></d<>
Relaxation	3rd grade ^c	30	3,6083	0,68444	4,404	,005	c <d< td=""></d<>
	4th grade ^d	46	4,1848	0,73868	-		C <u< td=""></u<>
	1st grade ^a	79	3,4399	0,91831	_		
Physical	2nd grade ^b	47	3,3511	0,73658	,282	,839	
Filysical	3rd grade ^c	30	3,3500	0,73578	_		
	4th grade ^d	46	3,4837	0,82395			
	1st grade ^a	79	3,7152	0,78419			
Aasthatias	2nd grade ^b	47	3,3617	0,79709	2,695	,047*	
Aesthetics —	3rd grade ^c	30	3,4583	0,64355	2,093	,047**	
	4th grade ^d	46	3,6902	0,74756	=		

p<0.05*

Table 5 illustrates the outcomes of the analysis of variance (ANOVA) between the total score and the sub-dimensions of the FNS and LSS, classified according to grade level. The findings indicated that no statistically significant difference was observed between the total score, psychological, educational and physical sub-dimensions of the LSS and FNS according to the grade level of the individuals (p>0.05). Nevertheless, a notable discrepancy was observed between the social (F=2.774; p=0.043), relaxation (F=4.464; p=0.005) and aesthetic (F=2.695; p=0.047) sub-dimensions of the LSS according to class level. A notable discrepancy was observed in the social sub-dimension between the 1st and 2nd grade students. In the relaxation sub-dimension, the mean scores of the 4th grade students surpassed those of the 2nd and 3rd grade students. While a statistically significant difference was identified in the aesthetic sub-dimension, this discrepancy was not deemed significant when comparing groups.

Table 6: ANOVA Results According to Department

	Deparment	n	Ā	SD	F	р	Tukey
ENC -	Physical Education and Sports Teaching ^a	38	2,7368	0,69439	1 222	260	
FNS —	Coaching Education ^b	50	2,5050	0,72948	1,323	,269	
·	Sports Management ^c	114	2,6930	0,79941	-'		
LSS —	Physical Education and Sports Teaching ^a	38	3,5592	0,57911	1.022	,148	
	Coaching Education ^b	50	3,4875	0,54054	1,932		
	Sports Management ^c	114 3,6835 0,65607					
Donalesteri	Physical Education and Sports Teaching ^a			0,76322	4.602	0104	
Psychological —	Coaching Education ^b	50	3,1650	0,75019	4,692	,010*	c>b
	Sports Management ^c	114	3,5504	0,73335	-		
Edward	Physical Education and Sports Teaching ^a	38	3,5526	0,74923	2.750	0.066	
Educational —	Coaching Education ^b	50	3,5200	0,77893	2,750	0,066	
	Sports Management ^c	114	3,8026	0,84106	-		
Social	Physical Education and Sports Teaching ^a	38	3,5658	0,72987	1,484	0,229	



	Coaching Education ^b	50	3,5100	0,71063		
_	Sports Management ^c	114	3,7193	0,81070	-	
	Physical Education and Sports Teaching ^a	38	3,8947	0,69659	1.067	0.246
Relaxation	Coaching Education ^b	50	3,7900	0,64949	1,067	0,346
	Sports Management ^c	114	3,9715	0,78408	='	
	Physical Education and Sports Teaching ^a	38	3,4079	0,78289	0.007	0.000
Physical —	Coaching Education ^b	50	3,3750	0,79097	0,097	0,908
_	Sports Management ^c	114	3,4364	0,86271	='	
	Physical Education and Sports Teaching ^a	38	3,5263	0,70899	0.245	0.792
Aesthetics —	Coaching Education ^b	50 3,5650		0,63850	0,245	0,783
_	Sports Management ^c	114	3,6206	0,84222	-	
0.054						

p<0.05*

The results of the analyses, which tested the difference between the total score and the sub-dimensions of the FNS and LSS according to department, are presented in Table 6. The results of the ANOVA indicated that there was no statistically significant difference between the total score, relaxation, educational, social, physical and aesthetic sub-dimensions of the FNS and LSS according to the department (p>0.05). However, a significant difference was observed in the psychological sub-dimension of the LSS (F=4.692; p=0.010), with a notable distinction evident between students enrolled in the sports management and coaching departments.

Table 7: ANOVA results according to academic perception level

	Academic Perception Level	n	Ā	SD	F	p	Tukey
	Low ^a	6	2,4167	0,79931			
FNS	Middle ^b	108	2,6790	0,71612	,356	,701	
•	High ^c	88	2,6411	0,82480	_		
	Low ^a	6	3,3264	0,55928			
LSS	Middle ^b	108	3,5177	0,58810	4,091	,018*	c>b
	High ^c	88	3,7462	0,63627			
	Low ^a	6	3,5000	0,70711	_		
Psychological	Middle ^b	108	3,3218	0,72831	2,342	0,099	
	High ^c	88	3,5540	0,78184			
Educational	Low ^a	6	3,5000	0,70711	_		
	Middle ^b	108	3,6042	0,75049	1,538	0,217	
	High ^c	88	3,7983	0,89206			
	Low ^a	6	2,7917	1,11149	_		a <b< td=""></b<>
Social	Middle ^b	108	3,5440	0,72249	7,011	,001*	a <c< td=""></c<>
	High ^c	88	3,8125	0,76211			b <c< td=""></c<>
	Low ^a	6	3,9583	0,69672	_		
Relaxation	Middle ^b	108	3,8125	0,73793	2,172	0,117	
	High ^c	88	4,0313	0,72893			
	Low ^a	6	3,3750	0,72024	_		
Physical	Middle ^b	108	3,3102	0,75417	2,037	0,133	
·	High ^c	88	3,5483	0,90565	= 		
	Low ^a	6	2,8333	0,70119	_		
Aesthetics	Middle ^b	108	3,5139	0,66876	5,152	,007*	a <c< td=""></c<>
•	High ^c	88	3,7330	0,84995	_		

p<0.05*

The difference between the total scores and the sub-dimensions of the FNS and LSS was evaluated by ANOVA analysis, with the aim of determining the academic perception level of



the students. The results are presented in Table 7. No statistically significant difference was observed between the psychological, educational, relaxation and physical sub-dimensions of the LSS according to the level of academic perception (p>0.05). A difference was identified in terms of the total score (F=4.091; p=.018), social (F=7.011; p=.001) and aesthetic (F=5.152; p=.007) sub-dimensions of the LSS. Students with a high academic perception level exhibited greater leisure satisfaction than those with lower levels of perception.

Table 8: ANOVA results according to income

Income Level	n	Ā	SD	F	р	Tukey
Income Less than Expense ^a	43	2,6085	0,82326	_		
Income Equals Expense ^b	125	2,7093	0,72336	,986	,375	
Income Exceeds Expense ^c	34	2,5123	0,83790			
Income Less than Expense ^a	43	3,4167	0,66865			
Income Equals Expense ^b	125	3,6950	0,57964	3,522	,031*	a <b< td=""></b<>
Income Exceeds Expense ^c	34	3,5515	0,64575	•		
Income Less than Expense ^a	43	3,2733	0,70882			
Income Equals Expense ^b	125	3,4920	0,75063	1,395	0,250	
Income Exceeds Expense ^c	34	3,3897	0,82616	<u>.</u> '		
Income Less than Expense ^a	43	3,4244	0,89731			
Income Equals Expense ^b	125	3,8020	0,78114	3,815	,024*	a <b< td=""></b<>
Income Exceeds Expense ^c	34	3,5882	0,77088	•		
Income Less than Expense ^a	43	3,5174	0,80066			
Income Equals Expense ^b	125	3,6940	0,76587	0,918	0,401	
Income Exceeds Expense ^c	34	3,5882	0,77333	•		
Income Less than Expense a	43	3,6395	0,86138			
Income Equals Expense b	125	4,0200	0,64414	4,514	,012*	a <b< td=""></b<>
Income Exceeds Expense ^c	34	3,8603	0,81462	•		
Income Less than Expense ^a	43	3,2326	0,82447			
Income Equals Expense ^b	125	3,4940	0,82273	1,702	0,185	
Income Exceeds Expense ^c	34	3,3603	0,83073	•		
Income Less than Expense ^a	43	3,4128	0,89290			
Income Equals Expense ^b	125	3,6680	0,72733	1,933	0,147	
Income Exceeds Expense ^c	34	3,5221	0,73177	•		
	Income Less than Expense ^a Income Equals Expense ^b Income Exceeds Expense ^c Income Less than Expense ^a Income Equals Expense ^b Income Exceeds Expense ^c Income Exceeds Expense ^c Income Less than Expense ^a Income Equals Expense ^b Income Exceeds Expense ^c Income Less than Expense ^a Income Less than Expense ^a Income Equals Expense ^b Income Exceeds Expense ^c Income Less than Expense ^a Income Equals Expense ^b Income Exceeds Expense ^c Income Less than Expense ^a Income Exceeds Expense ^c Income Less than Expense ^a Income Equals Expense ^b Income Exceeds Expense ^c Income Less than Expense ^a Income Less than Expense ^a Income Equals Expense ^a Income Equals Expense ^b Income Exceeds Expense ^c Income Exceeds Expense ^c Income Exceeds Expense ^c	Income Less than Expense ^a 43 Income Equals Expense ^b 125 Income Exceeds Expense ^c 34 Income Less than Expense ^a 43 Income Equals Expense ^b 125 Income Exceeds Expense ^c 34 Income Less than Expense ^a 43 Income Less than Expense ^a 43 Income Equals Expense ^b 125 Income Exceeds Expense ^c 34 Income Less than Expense ^a 43 Income Less than Expense ^a 43 Income Equals Expense ^b 125 Income Exceeds Expense ^c 34 Income Less than Expense ^a 43 Income Less than Expense ^a 43 Income Equals Expense ^b 125 Income Exceeds Expense ^c 34 Income Less than Expense ^a 43 Income Less than Expense ^a 43 Income Equals Expense ^b 125 Income Exceeds Expense ^c 34 Income Less than Expense ^a 43 Income Equals Expense ^b 125 Income Exceeds Expense ^c 34 Income Less than Expense ^a 43 Income Less than Expense ^a 43	Income Less than Expense ^a 43 2,6085 Income Equals Expense ^b 125 2,7093 Income Exceeds Expense ^c 34 2,5123 Income Less than Expense ^a 43 3,4167 Income Equals Expense ^b 125 3,6950 Income Exceeds Expense ^c 34 3,5515 Income Less than Expense ^a 43 3,2733 Income Equals Expense ^b 125 3,4920 Income Exceeds Expense ^c 34 3,3897 Income Less than Expense ^a 43 3,4244 Income Equals Expense ^b 125 3,8020 Income Exceeds Expense ^c 34 3,5882 Income Less than Expense ^a 43 3,5174 Income Equals Expense ^b 125 3,6940 Income Exceeds Expense ^c 34 3,5882 Income Less than Expense ^a 43 3,6395 Income Equals Expense ^b 125 4,0200 Income Exceeds Expense ^c 34 3,8603 Income Equals Expense ^b 125 3,4940 <	Income Less than Expense ^a 43 2,6085 0,82326 Income Equals Expense ^b 125 2,7093 0,72336 Income Exceeds Expense ^c 34 2,5123 0,83790 Income Less than Expense ^a 43 3,4167 0,66865 Income Equals Expense ^b 125 3,6950 0,57964 Income Exceeds Expense ^c 34 3,5515 0,64575 Income Less than Expense ^a 43 3,2733 0,70882 Income Equals Expense ^b 125 3,4920 0,75063 Income Exceeds Expense ^c 34 3,3897 0,82616 Income Less than Expense ^a 43 3,4244 0,89731 Income Equals Expense ^b 125 3,8020 0,78114 Income Less than Expense ^a 43 3,5882 0,77088 Income Less than Expense ^a 43 3,5882 0,77088 Income Equals Expense ^b 125 3,6940 0,76587 Income Equals Expense ^c 34 3,5882 0,77333 Income Equals Expense ^b 125 </td <td>Income Less than Expense^a 43 2,6085 0,82326 Income Equals Expense^b 125 2,7093 0,72336 ,986 Income Exceeds Expense^c 34 2,5123 0,83790 34 Income Less than Expense^a 43 3,4167 0,66865 34 Income Equals Expense^b 125 3,6950 0,57964 3,522 Income Less than Expense^a 43 3,2733 0,70882 3,522 Income Less than Expense^b 125 3,4920 0,75063 1,395 Income Exceeds Expense^c 34 3,3897 0,82616 3,826 Income Less than Expense^a 43 3,4244 0,89731 3,815 Income Equals Expense^b 125 3,8020 0,78114 3,815 Income Less than Expense^a 43 3,5174 0,80066 0,918 Income Equals Expense^b 125 3,6940 0,76587 0,918 Income Less than Expense^a 43 3,5882 0,77333 0,918 Income Equals Expense^b</td> <td> Income Less than Expense</td>	Income Less than Expense ^a 43 2,6085 0,82326 Income Equals Expense ^b 125 2,7093 0,72336 ,986 Income Exceeds Expense ^c 34 2,5123 0,83790 34 Income Less than Expense ^a 43 3,4167 0,66865 34 Income Equals Expense ^b 125 3,6950 0,57964 3,522 Income Less than Expense ^a 43 3,2733 0,70882 3,522 Income Less than Expense ^b 125 3,4920 0,75063 1,395 Income Exceeds Expense ^c 34 3,3897 0,82616 3,826 Income Less than Expense ^a 43 3,4244 0,89731 3,815 Income Equals Expense ^b 125 3,8020 0,78114 3,815 Income Less than Expense ^a 43 3,5174 0,80066 0,918 Income Equals Expense ^b 125 3,6940 0,76587 0,918 Income Less than Expense ^a 43 3,5882 0,77333 0,918 Income Equals Expense ^b	Income Less than Expense

p<0.05*

Table 8 presents the results of the ANOVA test conducted to ascertain whether there is a statistically significant difference between the total score and the sub-dimensions of the FNS and LSS according to the income of the students. The findings revealed no statistically significant correlation between income and FNS, LSS, psychological, social, physical and aesthetic dimensions (p>0.05). Nevertheless, a discrepancy was observed between the total score (F=3.522; p=0.031), educational (F=3.815; p=0.024) and relaxation (F=4.514; p=0.012) sub-dimensions. The students whose income was less than their expenses exhibited a lower level of leisure satisfaction than those whose income was equal to their expenses.

Table 9: ANOVA results according to weekly leisure duration

	Weekly Leisure Period	n	$ar{\mathbf{X}}$	SD	\mathbf{F}	р
	1-5 hours	49	2,7398	0,85368	_ _ 1,770	
ENIC	6-10 hours	91	2,7088	0,76632		,154
FNS —	11-15 hours	38	2,4013	0,67251	- 1,770	
	16 hours and over	24	2,6771	0,66044	_	
	1-5 hours	49	3,5672	0,77158		,344
LSS —	6-10 hours	91	3,5861	0,62838	- - 1,116	
L55	11-15 hours	38	3,7741	0,46202	- 1,110	
	16 hours and over	24	3,5417	0,39222	_	



p<0.05*

The analysis of variance (ANOVA) test was employed to ascertain whether there was a statistically significant difference between the total score and the sub-dimensions (psychological, educational, social, relaxation, physical, aesthetic) of the FNS and LSS, according to the weekly duration of free time available to students. According to the results of the analyses presented in Table 9, it was seen that there was no statistical difference between the total scores and sub-dimensions of the FNS and the LSS according to the weekly leisure duration (p>0.05).

Table 10: ANOVA results according to daily internet usage time

	Daily Internet Usage Time	n	$ar{\mathbf{X}}$	SD	\mathbf{F}	p	Tukey
	1 hours and less ^a	9	2,4630	1,24102	- - 4,602 -		
TENIC	2-4 hours ^b	93	2,4955	0,67481		,004*	d>b
FNS -	5-7 hours ^c	63	2,7050	0,79633			u>b
	8 hours and over ^d	37	3,0158	0,67639			
	1 hours and less ^a	9	3,9167	0,76688	- - ,946	,419	
LSS -	2-4 hours ^b	93	3,6237	0,64323			
	5-7 hours ^c	63	3,5952	0,59023			
	8 hours and over ^d	37	3,5349	0,56207	_		

p<0.05*

The analysis of the relationship between the total score and the sub-dimensions (psychological, educational, social, relaxation, physical, aesthetic) of the FNS and the LSS, as a function of the daily of internet usage by students, was conducted using an ANOVA test. According to Table 10, no difference was found between the LSS total score and sub-dimensions of the students (p>0.05). However, a statistically significant difference was identified between the FNS according to the duration of daily internet use (F=4.602; p=.004). The significant difference was observed between those whose daily internet usage time was between 2-4 hours and those whose daily internet usage time was 8 hours or more.

Table 11: T-test results according to technological tool variable

	Technological Tool	n	Ā	SD	t	p
FNS	Mobile phone 1 Computer or other		2,6828	0,75228	2,196	.029*
rns -			2,1667	0,85878	2,190	,029
LSS -	Mobile phone	191	3,6119	0,60909	.030	.976
	Computer or other	11	3,6061	0,79612	,030	,970

p<0.05*

The differences between the technological tool variable used by the students and the total scores and sub-dimensions of the FNS and LSS were analysed using a t-test. The results of the related analysis are presented in Table 11. The findings indicate that no statistically significant difference was observed between the total score and sub-dimensions (psychological, educational, social, relaxation, physical, aesthetic) of the LSS according to the technological tool variable (p>0.05). However, a statistically significant difference was identified between the FNS according to the technological tool variable (t=2.196; p=0.029).

Table 12: Correlation results between age, FNS, LSS total score and sub-dimensions

		Age	FNS
Ago	r	1	0,068
\mathbf{Age}	p		0,339
FNS	r	0,068	1
FNS	p	0,339	



1.00	r	-0,026	0,088
LSS	p	0,713	0,215
Davahalagiaal	r	0,069	0,142
Psychological	p	0,330	0,054
Educational	r	0,021	0,053
Educational	p	0,765	0,451
G!-1	r	-0,103	0,107
Social	p	0,144	0,131
Dolovotion	r	0,005	0,009
Relaxation	p	0,945	0,897
Dharataal	r	-0,039	0,035
Physical	p	0,583	0,620
Acathotica	r	-0,075	0,072
Aesthetics	p	0,289	0,311

Table 12 shows the results of the relationship between age, netlessphobia, and the LTSS and its sub-dimensions. According to the findings, no statistically significant relationship was found between all variables (p>0.05).

Discussion

The aim of the study was to investigate the relationship between netlesphobia and leisure satisfaction among students studying at the faculty of sport sciences. The results showed that students' netlesphobia (\bar{x} =2.65) was at a moderate level and their leisure satisfaction (\bar{x} =3.61) was at a high level. In the study conducted by Aydın Kartal and Bulut (2022), midwifery students' netlesphobia was found to be at a moderate level. Similar results were found in another study conducted with students (Sarıtepe, 2024). It was observed that many studies on individuals' leisure satisfaction supported the findings of this study (Cho, 2023; Ma & Li, 2023). Therefore, it can be said that the literature supports the findings of the current study.

No gender difference was found between students' netlesphobia and leisure satisfaction. In the study conducted by Ülger and Ersoy (2023) with students from the faculty of sport sciences, no difference was found between internet addiction according to gender. However, contrary to the findings, there were also studies that showed differences in studies conducted with students from different faculties (Aslan & Yazıcı, 2016; Karasu et al., 2017). The differences between individuals are believed to be due to their socio-demographic characteristics. Different results were found between leisure satisfaction according to gender (Hur et al., 2019; Gürkan et al., 2021; Kuo et al., 2021; Sönmez & Gürbüz, 2022; Khan & Hamad, 2023). This situation may vary depending on the type, place, time and personal characteristics of leisure activities (Siyahtaş, 2024).

The investigation revealed no significant correlation between students' netlessphobia and the variables associated with their class and department. The study conducted by Atilgan (2020) revealed that the prevalence of nomophobia among university students was consistent across different class levels. Similarly, no significant differences were observed in the prevalence of internet addiction among students of the sports sciences faculty, irrespective of their respective departments (Ülger & Ersoy, 2023). It can be stated that the findings of the current research are supported by the existing literature. There was a difference in leisure social and relaxation activities according to the class variable and in psychological satisfaction according to the department. In the study conducted by Serdar and Demirel (2020), a significant difference was found in the sub-dimension of leisure satisfaction relaxation according to the department of sports sciences faculty students. The satisfaction of students in different dimensions may be due to the diversity of activities.



The level of academic perception was found to be inconsequential in determining the extent of netlessphobia. The paucity of existing literature made it challenging to draw comparisons between the findings of the current study and those of previous research. However, given that fear is an emotional state that can vary significantly between individuals, it is thought that there may be a number of different factors affecting this situation. It was determined that individuals with high academic perception achieved greater satisfaction in leisure time across a range of dimensions. This may be due to the fact that these individuals also have high awareness of leisure time activities. However, the homogeneous distribution of the data may have affected the results. Therefore, further research is recommended to strengthen the interpretations on the effect of academic perception level on leisure time satisfaction.

The analysis revealed no statistically significant correlation between netlessphobia and income status among students enrolled in the faculty of sport sciences. It was observed that the results of the studies in the literature (Eryılmaz et al., 2020; Yılmaz Alarçin & Şirin, 2021) align with the current research findings. Given the pervasive accessibility of the Internet in contemporary society, income status may not be a significant predictor of the fear of being unable to connect to the Internet. A discrepancy was identified with regard to educational and recreational activities, with income status influencing satisfaction levels in these domains. Individuals with lower incomes exhibited lower levels of satisfaction in their leisure time. These findings were partially corroborated by existing literature (Cengiz & Yaşartürk, 2020; Bae, 2022).

The results indicated that there was no statistically significant correlation between netlessphobia and leisure satisfaction, when the weekly leisure duration variable was taken into account. It can be inferred that weekly free time duration has no impact on netlessphobia, given that individuals already engage with the internet to a significant extent during their free time (Özel & Önal, 2023). In a study conducted with students at the Faculty of Sports Sciences, no difference was found between students' weekly free time satisfaction according to the weekly free time duration variable (Serdar & Demirel, 2020). Siyahtaş (2024) posited that the benefit obtained from the activities may positively affect satisfaction, and thus, the duration may not have a direct effect.

A notable discrepancy in netlessphobia levels was observed among students of sports science, contingent on the category of technological devices they utilize. The results indicated that students who primarily use smartphones exhibited higher levels of fear regarding the absence of internet access. This finding is to be expected, given the increasing integration of smartphones into everyday life. The absence of a smartphone has been identified as a factor contributing to the development of anxiety disorders among individuals (Bekaroğlu & Yılmaz, 2020). Given that smartphones are typically used in conjunction with internet access, the emergence of netlessphobia can be regarded as a foreseeable consequence. However, it is recommended that future studies encompass individuals who utilise a range of technological devices throughout the day to re-examine the phenomenon of netlessphobia.

The investigation yielded no statistically significant correlation between students' ages and their levels of netlessphobia and leisure satisfaction. In a study conducted by Çağın (2021), the relationship between the age of students enrolled in the faculty of sport sciences and their levels of digital addiction was examined. The findings indicated a low, negative correlation between the two variables. In contrast with the findings of the present study, other research on the impact of age on digital addiction has identified relationships or differences between the concepts (Kuyucu, 2017; Akın, 2018). The results of this study indicate that age is not a direct determinant of digital addiction, netlessphobia, nomophobia, or internet addiction. It is



possible that other variables may also exert an influence. Conversely, research examining the relationship between age and leisure satisfaction has yielded findings that are consistent with those of the present study (Jun & Song, 2016; Lee et al., 2022).

The present study examined the relationship between netlessphobia and leisure satisfaction among students in the faculty of sport sciences. The analysis yielded no statistically significant correlation between netlessphobia and leisure satisfaction, including its subdimensions. In other words, it can be stated that the satisfaction gained during leisure time does not affect netlessphobia. A review of the literature, however, revealed studies indicating that increased leisure satisfaction is associated with decreased digital gaming addiction (Satılmış et al., 2023). Similarly, Güler and Özmaden (2023) found that as leisure satisfaction increased, awareness of digital gaming addiction also rose among students in the Faculty of Sport Sciences. Consequently, the findings of existing literature do not support the results of the present study.

Conclusion

The findings of the study indicated that students in the faculty of sport sciences exhibited a moderate level of netlessphobia and a high level of leisure satisfaction. It was established that the duration of daily internet usage and the type of technological device most frequently used by students had a significant impact on their levels of netlessphobia. Furthermore, it was found that leisure satisfaction was influenced by a number of independent variables. However, when the hypothesis was tested to ascertain whether there was a relationship between leisure satisfaction and netlessphobia, it was concluded that no significant relationship existed between these variables.

In the present era, concerns pertaining to digital, internet, and gaming addiction have reached a critical point. While a considerable proportion of the population engages in leisure activities that confer biopsychosocial benefits, a notable proportion of the younger generation allocates their leisure time to internet use. The time spent online is sometimes perceived as leisure time and at other times as part of the routine activities of daily life. This has resulted in an increasing inability to function without internet access. In this context, it is considered important to identify the factors that influence or drive individuals toward using the internet, smartphones, or gaming during their leisure time. Based on this premise, the relationship between netlessphobia and leisure satisfaction was examined. However, the present study was limited to students in the faculty of sport sciences. It is recommended that future research explore this topic with different sample groups and larger populations. Additionally, it is suggested that future studies investigate the relationship between netlessphobia during leisure time and other factors such as boredom, motivation, and engagement, which may potentially influence this fear among students.

*This study was presented as an oral presentation at the 7th International Conference on Sports, Education and Society held between 11-13 November 2024.



REFERENCES

Akay, B., & Yaşartürk, F. (2023). Investigation of the relationship between leisure time satisfaction and self-efficacy belief of physical education teachers. Trakya Journal of Education, 13(1): 318-330.

Akın, G. (2018). Determination of the level of smartphone addiction in Erzincan University students and evaluation of related factors. Medical Specialization Thesis. Erzincan Binali Yıldırım University.

Alaçam, H., Çulha, F. A., Şengül, A. C., & Tümkaya, S. (2015). The relationship between smoking and alcohol use and internet addiction among the university students. Anatolian Journal of Psychiatry, 16: 383-388.

Aslan, E., & Yazıcı, A. (2016). Internet addiction among university students and related sociodemografic factors. Klinik Psikiyatri, 19: 109-117.

Aslan, N. (2019). Internet addiction among adolescents: a study on the prevelance and the reasons of internet addiction and its results. Journal of International Social Research, 12(65): 945-957.

Atilgan, S. S. (2020). Determining the nomophobi level among the university students using smartphones. Elektronik Cumhuriyet İletişim Dergisi, 2(2): 6-23.

Aydın Kartal, Y., & Bulut, A. (2022). Investigation of digital addiction and netlessphobia levels of midwifery students by variables. Euroasia Journal of Mathematics, Engineering, Natural & Medical Sciences, 9(25): 60-70.

Batıgün, A. D., & Hasta, D. (2010). Internet addiction: an evaluation in terms of loneliness and interpersonal relationship styles. Anatolian Journal of Psychiatry, 11(3):213-219.

Beard, J. G., & Ragheb, M. G. (1980). Measuring leisure satisfaction. Journal of Leisure Research, 12(1): 20–33.

Bekaroğlu, E. T., & Yılmaz, T. (2020). Nomophobia: Differential diagnosis and treatment. Current Approaches in Psychiatry, 12(1): 131-142.

Cengiz, R., & Yaşartürk, F. (2020). Examination of the relationship between fitness participants' service quality and leisure satisfaction levels in Gyms. International Journal of Contemporary Educational Studies (IntJCES), 6(1): 48-62.

Cho, D. (2023). Effects of College Students' Sports Tourism on Leisure Satisfaction, Research Square.

Çağın, M. (2021). Investigation of the relationship between physical activity level, sleep quality and technology addiction in sports science students. Master Thesis. Sakarya University of Applied Sciences.

Drago, E. (2015). The effect of technology on face-to-face communication. Elon Journal of Undergraduate Research in Communications, 6(1): 1–7.

Durmuş Sarıkahya, S., Akçam, A., Kanbay, Y., Özbay, Ö., & Çınar Özbay, S. (2024).



Predictive effects of nomophobia, netlessphobia, and sleepiness on fatigue. Addicta: The Turkish Journal on Addictions, 11(1): 44-50.

Eryılmaz, S., Sarıçayır, D., & Yıldız, G. (2020). Investigation of students' information technology self-efficacy perception and internet addiction. Journal of Research Education and Society, 7(2): 609-638.

Gezgin, D. M., & Türk Kurtça, T. (2024). Examining the effect of the prevalence of netlessphobia on smartphone addiction among university students. Balkan 11th International Conference On Social Sciences.

Gökçe, H., & Orhan, K. (2011). Validity and Reliability Study of the Leisure Satisfaction Scale (LSS) into Turkish. Hacettepe J. of Sport Sciences, 22(4): 139-145.

Guler, H., & Ozmaden, M. (2023). Investigation of the relationship between the digital game addiction awareness and leisure time satisfaction levels of the students of the faculty of sports sciences. Journal of ROL Sport Sciences, 4(1): 1-21.

Güney, B. (2017). Digital culture transition in digital addiction: netlessphobia. e-Journal of New Media, 1(2): 207-213.

Gürkan, R. K., Koçak, F., & Başar, A. (2021). Investigation on the relationship between the leisure satisfaction and psychological well-being in disabled athletes. International Journal of Sport Exercise and Training Sciences-IJSETS, 7(2): 73-83.

Huck, S.W. (2012). Reading statistics and research (6th ed). Boston: Pearson.

Hur, S. E., Oh, Y. C., Song, Y. S. & Moon, H. W. (2019). The effects of the exercise commitment of university water sport participants on leisure satisfaction. Journal of Sport and Applied Science, 3(2): 1-10.

Jun, Y., & Song, Y. (2016) The moderating effect of the leisure satisfaction in the job stress on job satisfaction of nurses on shift work. Korean Journal of Occupational Health Nursing, 25(3): 208-215.

Kadan, G. (2023). Investigation of nomofobia and netlessphobia levels of child development undergraduate students. International Journal of Social Sciences, 7(31): 305-326.

Kanbay, Y., Fırat, M., Akçam, A., Çınar, S., & Özbay, Ö. (2021). Development of Fırat Netlessphobia Scale and investigation of its psychometric properties. Perspectives in Psychiatric Care, 58(4): 1258-1266.

Karakoç, E., & Taydaş, O. (2013). Relation between web surfing of university students and their loneliness as a leisure time activity: a sample of students in Cumhuriyet university. Selçuk İletişim, 7(4): 33-45.

Karasu, F., Bayır, B., & Çam, H. H. (2017). Examination of the relationship between the internet addiction of university students and the social support. Kilis 7 Aralık Üniversitesi Sosyal Bilimler Dergisi, 7(14): 372-386.

Khan, S.I., & Hamad, K.Q. (2023). Relationship between leisure satisfaction and addiction to



social media: case study on sports students of Lebanese French University. Sport i Turystyka Środkowoeuropejskie Czasopismo Naukowe, 3(5): 83–97.

Kim, Y. J., Ban, Y. M., & Kang, S. W. (2024). Impact of leisure satisfaction on perceived risk of infectious disease during the COVID-19 pandemic: evidence from new worker classes. Frontiers in Public Health, 11: 1229571.

Kuo, Y.K., Wang, J.H., Kuo, T.H., & Ho, L.A. (2021). Leisure satisfaction influences learning performance among community college students. SAGE Open, 11(4): 1-11.

Kuyucu, M. (2017). Use of smart phone and problematic of smart phone addiction in young people: "smart phone (colic)" university youth. Global Media Journal TR Edition, 7(14): 328-359.

Lee, T. K., Yun, J. A., & Kang, I. S. (2022). The influences of leisure satisfaction and burnout on job satisfaction of clinical nurses. Journal of Industrial Convergence, 20(5): 111-123.

Ma, L., & Li, S. (2023). A Study on the relationship among father's leisure involvement, family leisure satisfaction and family well-being. Journal of Sociology and Ethnology, 5(5): 103-111.

Özel, E., & Önal, N. (2023). Examination of teachers' netlessphobia. Siirt Journal of Education, 3(2): 69-85.

Öztürk, U. C. (2015). "Netlessfobia" stay in connection or not that is the all fear: fear of being without internet and organizational reflections. The Journal of International Social Research, 37: 629-638.

Sarıtepe, D. F. (2024). An analysis of the relations between fomo, netlessphobia and the sense of family coherence in university students: The case of Istanbul Sabahattin Zaim University. Master's Thesis. İstanbul Sabahattin Zaim University.

Satılmış, S. E., Öntürk, Y., Özsoy, D., & Yaraş, A. (2023). Examination of the relationship between university students' leisure time satisfaction and digital game addiction levels. CBU Journal of Physical Education and Sport Sciences, 18(1): 1-15.

Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. Methods of Psychological Research Online, 8(2): 23-74.

Schimmack, U. (2008). The structure of subjective well-being. In M. Eid & R. J. Larsen (Eds.), The science of subjective well-being (pp. 97–123). The Guilford Press.

Serdar, E., & Demirel, M. (2020). The relationship between perceived stress and leisure satisfaction: example of sports sciences students. Journal of Physical Education and Sport Sciences, 22(3): 54-64.

Siyahtaş, A. (2024). The relationship between boredom, involvement, satisfaction and happiness in leisure. Ph.D Thesis. Istanbul University-Cerrahpaşa Institute of Graduate Studies.



Sönmez, A., & Gürbüz, B. (2022). Analysis of the relationship between leisure satisfaction and adjustment to university life on university students. Journal of Computer and Education Research, 10(20): 481-502.

Tabachnick, B. G., & Fidell, L. S. (2013). Using multivariate statistics, Pearson Education. ISBN: 978-0-205-89081-1.

Tohumcu, M. U., Karslı, T. A., Bahadır, E., & Kalender, B. (2019). Analysis of the relationship between smartphone addiction and internet addiction and self-esteem and loneliness. Trakya University Journal of Social Science, 21(2): 773-787.

Türker, N., Ölçer, H., & Aydın, A. (2016). Leisure time habits of residents: A Case Study on Safranbolu. Karabuk University Journal of Institute of Social Sciences, 6(1): 49-62.

Ülger, S., & Ersoy, A. (2023). Spor bilimleri fakültesi öğrencilerinin gelişmeleri takip edememe korkusu ve internet bağımlılık düzeyleri arasındaki ilişki. Spor Bilimlerinde Öncü ve Çağdaş Çalışmalar, 219. Editör: Nurkan Yılmaz. ISBN: 978-625-6945-78-4.

Xia, X., Qin, S., & Zhang, S. (2024). Leisure experience and mobile phone addiction: Evidence from Chinese adolescents. Heliyon, 10(3).

Yılmaz Alarçin, E., & Şirin, H. (2021). Internet addiction and time management relationship in university students. Marmara Üniversitesi Öneri Dergisi, 16(55): 95-124.

Zhao, Y., Xu, D., & Gui, J. (2024). More is better? Family leisure involvement and individual leisure satisfaction among Chinese adult workers. Leisure Studies, 1-17.