

The Relationship between University Students' Perception of Boredom in Leisure Time and Internet Addiction during Social Isolation Process

Sosyal İzolasyon Sürecinde Üniversite Öğrencilerinin Serbest Zamanda Sıkılma Algısı ve İnternet Bağımlılığı İlişkisi

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Abstract

Objective: The aim of the study is to examine the relationship between university students' perception of leisure time boredom and internet addiction levels during the social isolation process and to compare them in terms of various demographic variables.

Method: The universe of research exists students who continue their education at Manisa Celal Bayar University. The sample group consists of a total of 503 volunteers, 296 females and 207 males selected by convenience sampling method. Additionally the personal information form, the "Young Internet Addiction Test-Short Form" (YIAT-SF) and the "Leisure Boredom Scale" (LBS) were applied to the participants.

Results: University students had average scores for YIAT-SF (2.67 ± 0.88), boredom (2.66 ± 1.11) and dissatisfaction (2.50 ± 0.97). In addition, there was a positive and significant relationship between YIAT-SF and LBS's subscales, while the level of boredom significantly affected internet addiction and it was found to predict with a variance of 41%.

Conclusion: The perception of boredom in leisure significantly affects the internet addiction levels of individuals. As the perception of boredom in leisure increases in the social isolation process of university students, the level of internet addiction also increases.

Keywords: Addiction, boredom, leisure time, social isolation, COVID-19

Öz

Amaç: Araştırmanın amacı, sosyal izolasyon sürecinde üniversite öğrencilerinin serbest zamanda sıkılma algısı ve internet bağımlılığı düzeyleri arasındaki ilişkiyi incelemek ve çeşitli demografik değişkenler açısından karşılaştırmaktır.

Yöntem: Araştırmanın evrenini, Manisa Celal Bayar Üniversitesi'nde eğitimine devam eden öğrenciler oluşturmaktadır. Örneklem grubu, kolayda örneklem yönetimi ile seçilen 296 kadın ve 207 erkek olmak üzere toplamda 503 gönüllü bireyden oluşmaktadır. Katılımcılara kişisel bilgi formunun yanı sıra "Young İnternet Bağımlılığı Testi-Kısa Formu" (YİBT-KF) ve "Serbest Zamanda Sıkılma Algısı Ölçeği" (SZSAÖ) uygulanmıştır.

Bulgular: Üniversite öğrencilerinin YİBT-KF (2.67 ± 0.88), sıkılma (2.66 ± 1.11) ve doyumsuzluk (2.50 ± 0.97) için ortalama puanlara sahip olduğu belirlenmiştir. Ayrıca YİBT-KF'nin SZSAÖ faktörleri ile arasında pozitif yönde anlamlı bir ilişkisi olduğu görülürken sıkılma düzeyinin internet bağımlılığını anlamlı derecede etkilediği ve %41'lik varyans ile açıklar durumda olduğu tespit edilmiştir.

Sonuç: Serbest zamanda sıkılma algısı bireylerin internet bağımlılık düzeylerini önemli ölçüde etkilemektedir. Üniversite öğrencilerinin sosyal izolasyon sürecinde serbest zamanda sıkılma algısı arttıkça internet bağımlılık düzeylerinin de arttığı belirlenmiştir.

Anahtar kelimeler: Bağımlılık, sıkılma, serbest zaman, sosyal izolasyon, COVID-19

Introduction

Primitive human who started the day with the sunrise, who tried to measure the time, and who lived their lives depending on the daylight, tried to continue their lives with various activities and has been in progress for years. Humans who became modernized have become more and more independent thanks to the new techniques that they developed and emerged periods of time where they can express themselves more freely. Today, the standards of life are changing; thus, leisure is becoming a significant concept for humanity with the ongoing technological developments (1). Thanks to the rapid technological developments, working hours are decreasing, and the duration of leisure where people can save for themselves are increasing. Also, whereas technological developments provide with rich functionally improved opportunities in order to make use of leisure, they increase the participation in passive recreation activities (2).

After the disease COVID-19, which had a great impact all around the world, was determined to be infectious, precautions as quarantine and social isolation increased day by day (3). During this period, although the limitations on socialization and mobility were implemented in order to protect the biological health of individuals, the harms that it could bring about in terms of psychological aspects were ignored. While individuals, who had to endure a restricted lifestyle due to practices such as "Stay home", tried to continue their lives, they were psychologically affected in a negative way (4). The changes that occurred also revealed some problems in terms of leisure activities. In the restricted social life, the fact that people could not spend their leisure as they passed, the fact that their leisure became ordinary, and the fact that they lost awareness brought by negative life outcomes in people. During this process, the fact that individuals approached their leisure, which is a period of time apart from the time that they spend with the obligatory tasks, with a monotonous manner unveiled the perception of boredom in a psychological sense (5).

Individuals who cannot meet their needs psychologically tend to display harmful behaviors (smoking, drinking problems, substance use etc.) (6-8). This situation triggers negative coping strategies in individuals with inadequate social skills, low self-perception, loneliness, anxiety and depression, it reveals behaviors that may cause addiction and plays a mediating role in the occurrence of similar problems such as pathological internet use (9,10). Studies in the literature show that there is a significant correlation between being antisocial and technology use, and consequently, the technology use also increase among the university students who generally consist of a young population (11-14). The boredom perception is accepted as one of the important factors encouraging the use of internet and technology use in the literature (15).

Social isolation precautions taken in order to stop pandemic from spreading are becoming more and more significant day by day. Individuals staying home have gained an excessive amount of leisure time which cannot be managed effectively due to the lack of leisure activity; therefore, the use of internet and technology has increased; and this indicates that internet and technology addiction may occur in the long run (16, 17). According to the Global Statistics Report published by We Are Social in April 2020 (18), it is stated that big leaps occurred in terms of digital activities in the countries where intense precautions had been taken and that the internet use increased in order to access things such as social media, e-trade, online games etc. The hypothesis of this research is that there will be a significant relationship between internet addiction and dissatisfaction and boredom in leisure time. The aim of the current study which has been derived from the aforementioned points is to examine the correlation between leisure boredom perception and internet addiction levels of individuals who continued their university studies online during the social isolation period and to compare these according to various demographics.

Method

Sample

The population of the current study consists of individuals studying at Manisa Celal Bayar University. The study group consists of 503 university students (Mean age=20.91 $\pm$ 2.33), 296 females (Mean age=20.64 $\pm$ 2.35) and 207 males who voluntarily participated in the study and filled in the online form completely

(Mean age=21.30 $\pm$ 2.26). The criteria for inclusion in the research were determined as individuals studying at Manisa Celal Bayar University. 533 individuals participated in the study. 30 individuals who filled out the online questionnaire incorrectly were excluded from the study. G Power program was used to test the study group (19).

Procedure

For this research, Manisa Celal Bayar University Social and Human Sciences Scientific Research and Publication Ethics Committee was applied. Ethics committee approval with meeting number 2022/10 was obtained as of 12.10.2020. It was stated to the participants of the research that the information would only be used for scientific purposes in line with the research. Also it was mentioned to the participants that they had the right to leave the research according to their own request.

In this research, the individuals were reached as a result of the Google online survey application. The research was conducted through the online form during the COVID-19 social isolation period. The forms to be applied were developed over Google forms. Before reaching the volunteer participants, the forms created by the researchers were tested. Online forms were sent to the participants as a message over the university platform on social media. In the message sent to the participants with the participation link, it was stated that the research was a master study and it was requested to be filled out carefully only once. All questions on the form must be answered. In the form with 5 different pages, people have the opportunity to return to the page they want, but there is no chance to leave it blank in the form with 41 questions in total. The questionnaires filled in by the participants were completed in an average of 5 minutes. Participation was carried out on a voluntary basis and individuals were not paid any fees for their participation.

Measures

Demographic Information Form

In order to determine demographics such as age, gender, education status, following social isolation precautions status, leisure duration (weekly) and internet use duration (daily), demographic information form was developed by the researchers and applied online.

Young's Internet Addiction Test Short-Form

Developed by Young (20) and adapted into a short form by Pawlikowski et.al. (21), Young Internet Addiction Test Short-Form (YIAT-SF) was adapted into Turkish language by Kutlu et.al. (22) and aims to measure internet addiction. YIAT-SF consists of 12 items and one subscale and is in five-point likert type. The answered that can be given to the items are as follows: "1=Never", "2=Rarely", "3=Sometimes", "4=Often", "5=Always". As a result of the adaptation studies, the Cronbach Alpha internal consistency coefficient of the scale was calculated as 0.85 for university students. It was determined that the current scale is a valid and reliable scale to apply on both university students and teenage groups. The scale which consists of 12 items hasn't got any reverse coded item. The scores obtained from the scale ranges between 12 and 60. The high scores obtained from the scale indicate a high level of internet addiction. In the current study, the Cronbach Alpha coefficient was found 0.912 which is in high level of reliability.

Leisure Boredom Scale

Leisure Boredom Scale (LBS) developed by Iso-Ahola and Weissinger (23) aims to measure "the individual differences in the leisure boredom perception". The original version of the scale consists of 16 items and has one subscale. The choices in the scale are as follows: "1= Absolutely Disagree", "2=Disagree", "3=Neither Agree Nor Disagree", "4=Agree", "5=Absolutely Agree". The Cronbach Alpha internal consistency coefficient was respectively determined for three different sample group of university students as 0.85, 0.88 and 0.86. The adult adaptation for the Turkish version's validity and reliability of the scale was carried out using the original form by Kara, Gürbüz and Öncü (24) and applied to adults working in different job areas. As a result of the Turkish adaptation study, it was determined that the scale consists of 10 items

and 2 subscales. The first subscale “Boredom” is represented by 1st, 2nd, 6th, 7th and 10th items whereas the second subscale “dissatisfaction” is represented by 3rd, 4th, 5th, 8th and 9th items. It was determined by Kara et.al. (24) that the Cronbach Alpha internal consistency coefficient of the scale is 0.72 for “boredom” and 0.72 for “dissatisfaction”. It was also seen that the total Cronbach Alpha internal consistency coefficient of the scale is 0.77. The alpha coefficient obtained in the current study was 0.867 for boredom and 0.852 for dissatisfaction whereas it is determined as 0.887 for the total scale which indicates a high reliability level.

Statistical Analysis

In the analysis of the data obtained using convenient sampling method, Skewness and Kurtosis values were examined in order to determine the homogeneity (25). Levene's Test was used to test the equality of variances in two-group independent variables (gender), and the Independent Samples T Test was used for the difference between groups. In the remaining three-group independent variables (participation in physical activity during pandemic, weekly leisure duration, difficulty in leisure participation, sociability status) ANOVA for YIAT-SF and MANOVA for LBS's subscales were performed. In addition, correlation was used to determine the relationship between the YIAT-SF and LBS's subscales, and regression test to determine the effect. The significance value was accepted as $p < 0.05$ in the statistical analyses and interpretations. Cronbach Alpha internal consistency coefficient was calculated in order to determine the reliability of the scales in terms of the target sample. According to the power analysis, the effect size of the research was determined as 0.25, the power was 0.99 and the margin of error was 0.05.

Results

Total mean scores from YIAT-SF of the participants is 2.67; in addition, the Cronbach Alpha internal consistency coefficient is calculated as 0.912. Mean score calculations done in order to determine the mean scores of the subscales of LBS indicated that mean scores of the participants for “boredom” subscale is 2.66 whereas mean scores of the participants for “dissatisfaction” subscale is 2.50. When the Cronbach Alpha internal inconsistency coefficients of the scale were calculated, it was determined that it ranges from 0.852 for “dissatisfaction” to 0.867 for “boredom”.

Table 1. Distribution of scale scores for YIAT-SF and LBS

Scales	# of Items	N	Mean / Sd	Skewness	Kurtosis	Cronbach Alpha
YIAT-SF	12	503	2.67 / 0.88	0.265	-0.991	0.912
Boredom (LBS)	5	503	2.66 / 1.11	0.248	-1.038	0.867
Dissatisfaction (LBS)	5	503	2.50 / 0.97	0.271	-0.888	0.852
Total (LBS)	10	503	2.58 / 0.92	0.195	-0.919	0.887

YIAT-SF: Young Internet Addiction Test – Short Form, LBS: Leisure Boredom Scale, Sd: Standard Deviation

When the Table 2 is considered, it was determined that boredom [$t_{(501)} = -2.68$; $p = 0.00 < 0.05$] and dissatisfaction [$t_{(501)} = -3.38$; $p = 0.00 < 0.05$] scores and YIAT-SF total mean scores of the participants [$t_{(501)} = -6.082$; $p = 0.00 < 0.05$] differed in favor of male participants in terms of gender variable. When weekly leisure duration variable is considered, the results indicated a significant difference in terms of boredom [$F_{(3-499)} = 18.090$; $p = 0.00 < 0.05$], dissatisfaction [$F_{(3-499)} = 10.423$; $p = 0.00 < 0.05$] and YIAT-SF [$F_{(3-499)} = 16.878$; $p = 0.00 < 0.05$] scores. The significant difference is in favor of the participants who have $16 \leq$ hour of weekly leisure in all measurements. When participation in physical activity during pandemic variable is examined, the scores of boredom [$F_{(2-500)} = 39.33$; $p = 0.00 < 0.05$] and dissatisfaction [$F_{(2-500)} = 44.14$; $p = 0.00 < 0.05$] and YIAT-SF [$F_{(2-500)} = 18.971$; $p = 0.00 < 0.05$] indicated a significant difference in favor of the participants who never participated in physical activity. When difficulty in leisure participation variable is considered, it was determined that boredom [$F_{(2-500)} = 91.544$; $p = 0.00 < 0.05$], dissatisfaction [$F_{(2-500)} = 36.943$; $p = 0.00 < 0.05$] and YIAT-SF [$F_{(2-500)} = 53.690$; $p = 0.00 < 0.05$] scores showed a significant difference. The significant difference which was found is in favor of the group which always has difficulty in leisure participation. Finally,

when sociability variable is considered, there was a significant difference in the scores of boredom [$F_{(2-500)}=85.317$; $p=0.00<0.05$], dissatisfaction [$F_{(2-500)}=38.343$; $p=0.00<0.05$] and YIAT-SF [$F_{(2-500)}=44.071$; $p=0.00<0.05$]. For all the scores that were obtained, the mean scores of the participants who define themselves as unsociable are higher when compared to the participants in other groups.

Table 2. T Test ANOVA and MANOVA results of participant demographics

Variables (Mean / Sd.)	YIAT-SF	Boredom (LBS)	Dissatisfaction (LBS)
Gender			
Female (n=296)	2.47 / 0.82	2.54 / 1.04	2.38 / 0.91
Male (n=207)	2.95 / 0.89	2.82 / 1.19	2.68 / 1.03
Participation in Physical Activity During Pandemic			
Regular Participation (n=63)	2.31 / 0.85	2.03 / 1.06	1.61 / 0.61
Irregular participation (n=230)	2.52 / 0.82	2.40 / 1.00	2.46 / 0.90
No Participation (n=210)	2.93 / 0.88	3.12 / 1.06	2.80 / 0.96
Weekly Leisure Duration			
1-5 hour (n=66)	2.35 / 0.77	2.38 / 0.92	2.32 / 0.92
6-10 hour (n=114)	2.45 / 0.83	2.23 / 0.95	2.18 / 0.84
11-15 hour (n=110)	2.48 / 0.81	2.50 / 1.09	2.18 / 0.84
16 ≤ hour (n=213)	2.98 / 0.88	3.05 / 1.13	2.45 / 1.02
Difficulty in Leisure Participation			
Always (n=125)	3.30 / 0.81	3.63 / 0.97	3.08 / 0.97
Sometimes (n=310)	2.49 / 0.79	2.40 / 0.91	2.37 / 0.87
Never (n=68)	2.30 / 0.84	2.01 / 1.07	2.05 / 0.95
Sociability Status			
Unsociable (n=80)	3.42 / 0.86	3.73 / 1.01	3.27 / 0.98
Neutral (n=104)	2.71 / 0.83	3.05 / 0.93	2.59 / 0.81
Sociable (n=319)	2.46 / 0.80	2.26 / 0.95	2.28 / 0.97

YIAT-SF: Young Internet Addiction Test – Short Form, LBS: Leisure Boredom Scale, Sd: Standard Deviation

Table 3. Correlation test results between YIAT-SF and subscales of LBS

		YIAT-SF	Boredom (LBS)	Dissatisfaction(LBS)
YIAT-SF	r	1		
	p			
Boredom (LBS)	r	0.636**	1	
	p	0.000		
Dissatisfaction (LBS)	r	0.389**	0.552**	1
	p	0.000	0.000	

YIAT-SF: Young Internet Addiction Test – Short Form, LBS: Leisure Boredom Scale

In Table 3, correlation analysis results carried out in order to determine the correlation between scales is shown. According to the results, there is a positive and strong correlation between YIAT-SF and “boredom” subscale of LBS ($r=0.636$; $p=0.00<0.05$) whereas there is a positive and medium level of correlation between YIAT-SF and “dissatisfaction” subscale of LBS ($r=0.389$; $p=0.00<0.05$).

Table 4. Regression test results between YIAT-SF and subscales of LBS

	B	Standard Deviation	β	p
Constant	1.266	0.091		0.000
Boredom (LBS)	0.481	0.033	0.606	0.000***
Dissatisfaction (LBS)	0.049	0.038	0.054	0.190

LBS: Leisure Boredom Scale

When the data is examined according to the regression analysis result in Table 4, it can be expressed that boredom subscale of LBS is a significant predictor of YIAT-SF ($R=638$; $R^2=406$; $F_{(2,500)}=171,170$; $p=0.00<0.05$). It was determined that boredom from LBS's subscales significantly affected internet addiction and was predictor with a variance of 41%.

Discussion

In terms of gender variable, significant differences were found in YIAT-SF total mean score and the subscale mean scores of LBS. It is also determined that the differences that were found was in favor of male participants. When the studies carried out in order to determine the internet addiction levels of university students are considered, it is seen that there are significant differences in terms of gender and this difference stems from male students (26, 27). However, there are other studies indicating no significant differences related to internet addiction in terms of gender variable (28, 29). Doğan (30) and Kara and Ayverdi (31) stated significant differences in favor of male participants for boredom subscale of LBS in their studies whereas Kara (32) and Wegner (33) stated that the significant differences are in favor of female participants. On the other hand, the study carried out by Aydın et.al. (34) emphasized that the total mean score of LBS do not indicate any significant differences.

In the current study, it was found that all measurements indicated statistically significant differences in terms of participation in physical activity during pandemic; in addition, the significant differences stemmed from the participants who never participated in physical activity. In their pre-pandemic studies, Ahmadi (35) and Khan et.al. (36) also stated that there are significant differences in terms of participation in physical activity or exercise variable according to internet addiction level; additionally, the individuals who never participate in physical activity or exercise were found to have a higher level of tendency to become internet addicts. On the other hand, there are studies showing significant differences in the boredom and dissatisfaction subscales in terms of participation in physical activity or exercise in leisure variable. The studies in the literature reported that individuals who do not participate in physical activity or exercise had higher mean scores from the subscales (37, 30). In the research carried out by Kara et.al. (38), it was determined that there is no significant difference in boredom and dissatisfaction subscales in terms of participation in physical activity.

All measurements carried out in terms of weekly leisure duration indicated significant differences. In the subgroups, the internet addiction, boredom and dissatisfaction scores of participants who have $16 \leq$ hours of leisure duration are higher when compared to the other groups. In the study carried out by Wang (39) in order to examine the correlation between leisure management, leisure boredom and internet addiction in the sample of university students, it is emphasized that what significantly affects leisure boredom and internet addiction emergence is that the individuals do not make use of their leisure well. Whereas leisure boredom has a mediating role between leisure management and internet addiction, leisure boredom levels of individuals who cannot manage their leisure effectively increases; consequently, this causes an increase in internet addiction. That the leisure duration which individuals had during social isolation process cannot be managed effectively indicated that individuals, in a sense, lack the skills to manage their leisure, and this plays a powerful role in the emergence of leisure boredom.

All measurements done in terms of having difficulty in leisure management indicated significant differences. The significant differences that are found in measurements is in favor of the group who have difficulty in managing their leisure. Kwon et.al. (40) stated that as the leisure constraints of individuals increase, the

leisure satisfaction decreases. It is observed that the individuals who want to raise their quality of life through leisure satisfaction may have a tendency towards new pursuits such as online games which can trigger the addiction due to limited leisure activities. Ryu (41) reports that the analysis results for constraining factors and smart phone addiction levels reveal significant differences. Similarly, Soyer (42) expresses that individuals who are exposed to the constraining factors more have higher levels of addiction levels. When the correlation between constraints and leisure boredom is considered, it is seen that leisure constraints have a significant effect on participation in recreational activities, and it is emphasized that this situation plays an important role in determining the leisure boredom perception levels of individuals (43, 44).

In terms of sociability variable, YIAT-SF scores indicated significant differences. The significant differences are in favor of unsociable group. Weinstein et.al. (45) states that the participants with higher levels of social anxiety have higher levels of internet addiction. Hayırcı and Sarı (46) determined that there is a positive and low level of correlation between addiction levels and social anxiety & loneliness. In addition, Kesici and Şahin (47) determined that addiction levels indicate significant differences in terms of internet use with social purposes. In the study, it can be seen that the internet use with social purposes of the participants, who are classified as internet addicts, has the highest impact value when compared to the other functions of internet use. Liu and Kuo (48) stated that the level of internet addiction of individuals increases due to the increase in the levels of discontentment and social anxiety towards the relationships with their peers. Also, it is determined that interpersonal social relations that affect the social anxiety levels are significantly positive and low level correlated with communication within family. While it is seen that interactions within families form the base for the social relations, social anxiety may stem from the negative relationships that may happen. This may lead to the emergence of negative behavior results such as addiction for individuals who want to obtain social satisfaction through the internet. In the current study, boredom and dissatisfaction subscale scores revealed significant differences in terms of sociability variable. The significant differences are in favor of the group of individuals who identify themselves as unsociable. Aydın et.al. (34) determined a significant difference related to the perception of boredom in terms of participation in social activities in leisure. Individuals who do not participate in social activities face with boredom more in their leisure. Leung (49) reported that when they are alone, individuals develop the intensive tablet use behavior with social and entertainment purposes in order to decrease the distress factor. Tan and Lu (50) found in their study where the correlation between social loneliness level and leisure boredom is examined that there is a significant difference between the two variables. Also, it was determined that the correlation between variables is positive and medium level. As a consequence, as the social loneliness levels of individuals increase, their leisure boredom levels are likely to increase.

When the correlation analysis related to YIAT-SF and the factors of LBS is considered, a positive and strong correlation between internet addiction levels and boredom factor was found whereas there is a positive and medium level correlation between internet addiction levels and dissatisfaction factor. When the regression analysis results are examined, it was determined that only boredom subscale of LBS has a significant predictor effect on YIAT-SF. When similar studies carried out in the literature are examined, Wang (39) stated that the correlation between leisure boredom and internet addiction is significant. A positive and medium level correlation between the two variables is detected. According to the result, as the leisure boredom level increases, internet addiction level also increases. Lin et.al. (15) reported that according to the regression analysis results of their study, leisure boredom has significant difference in terms of internet addiction and the correlation between them is positive and low level. Kara and Gürbüz (37) determined that there is a positive and low level of correlation between boredom and internet addiction according to the correlation analysis. In the study, it was determined that as the boredom perceptions of the participants increase, their internet addiction levels also increase. In the study with the university students used as a sample group, Kara (32) reported that the correlation analysis of internet addiction and leisure boredom factors reveals no significant difference. The general assumption in the literature is that as the leisure boredom perception increases, the internet addiction levels also increase. Unlike the studies in this direction, the individuals reporting no significant differences between the two variables are thought to have the necessary knowledge

related to leisure education, awareness and management. The awareness to be raised related to leisure is thought to remove habits that are worthless and to support wellbeing both in physical and in mental sense.

When examining the results, the limitations of the study should be evaluated. The research is limited to university students studying at Manisa Celal Bayar University. In addition, considering that the data were collected by online survey application in the fall semester of the 2020-2021 academic year, when social isolation measures were applied, the answers of the participants who did not fill the online survey application completely and correctly were eliminated in order to reduce information bias.

Considering the measures applied during the social isolation period and the increased amount of leisure time, recreational activity practices that individuals can do with their families in groups or individually are considered important in terms of both the perception of boredom and the prevention of internet addiction. Leisure time activity plans that can be applied within the family should be made. Considering the high scores in internet addiction and boredom perceptions of individuals who did not participate in physical activity during the pandemic, regular exercise practices to be performed on a daily basis could be considered as addiction, etc. will be important in solving problems. At the same time, the continuity of this type of exercise over a period of time will strengthen the immune system, which is an important point for the process, and will provide individuals with a more fit life. The importance and necessity of leisure time management, which plays an important intermediary role between the perception of boredom and internet addiction in leisure time, should be conveyed to individuals through education and training programs. Leisure education can be offered to students as an elective course within the university.

As a conclusion, when the social isolation period is examined, it can be seen that the participants faced a leisure depression during the adaptation to new normal process. University students cannot effectively manage the surplus leisure duration that they gained due to the social isolation precautions. The leisure period which cannot be used actively by individuals plays a mediating role which encourages internet addiction. It is determined that as the leisure boredom perception of the individuals increase in this process, the internet addiction levels also increase.

References

1. Henderson KA. Leisure studies in the 21st century: The sky is falling? *Leis Sci* 2010; 32(4): 391-400.
2. Okuyucu Ç, Ramazanoğlu F, Tel M. Teknolojik gelişim ile serbest zaman faaliyetleri ilişkisi. *Fırat Üniversitesi Doğu Araştırmaları Dergisi* 2006; 4(3): 58-60.
3. Üstün, Ç. Özçiftçi, S. COVID-19 pandemisinin sosyal yaşam ve etik düzlem üzerine etkileri: Bir değerlendirme çalışması. *Anadolu Kliniği Tıp Bilimleri Dergisi* 2020; 25(Special Issue on COVID 19): 142-153.
4. Bilge Y, Bilge Y. Koronavirüs salgını ve sosyal izolasyonun psikolojik semptomlar üzerindeki etkilerinin psikolojik sağlık ve stresle baş etme tarzları açısından incelenmesi. *Klinik Psikiyatri Dergisi* 2020; 23: 38-51.
5. Iso-Ahola SE, Weissinger E. Leisure and boredom. *J Soc Clin Psychol* 1987; 5(3): 356-364.
6. Orcutt JD. Contrasting effects of two kinds of boredom on alcohol use. *J Drug Issues* 1984; 14(1): 161-173.
7. Dahlen ER, Martin RC, Ragan K, et al. Boredom proneness in anger and aggression: Effects of impulsiveness and sensation seeking. *Pers Individ Dif* 2004; 37(8): 1615-1627.
8. Deci EL, Ryan RM. The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychol Inq* 2000; 11(4): 227-268.
9. Bozkurt H, Şahin S, Zoroğlu S. İnternet bağımlılığı: Güncel bir gözden geçirme. *Journal of Contemporary Medicine* 2016; 6(3): 235-247.
10. Türk F, Kul A, Kılıç E. Depression-anxiety and coping strategies of adolescents during the Covid-19 pandemic. *Turkish Journal of Education* 2021; 10(2): 58-75.
11. Bayhan V. Gençlik, sosyal medya ve internet bağımlılığı. *Düşünce Dünyasında Türkiz Siyaset ve Kültür Dergisi* 2013; 23: 61-80.
12. Çiftçi H. Üniversite öğrencilerinde sosyal medya bağımlılığı. *MANAS Sosyal Araştırmalar Dergisi* 2018; 7(4): 417-434.
13. Koçoğlu D. Üniversite öğrencilerinin çevrimiçi oyun bağımlılık düzeyine göre tüketici karar verme tarzlarının değerlendirilmesi. *MANAS Sosyal Araştırmalar Dergisi* 2019; 8(2): 1815-1830.

14. Yalçın I, Özkurt B, Özmaden M, et al. Effect of smartphone addiction on loneliness levels and academic achievement of z generation. *International Journal of Psychology and Educational Studies* 2020; 7(1): 208-214.
15. Lin CH, Lin SL, Wu CP. The effects of parental monitoring and leisure boredom on adolescents' internet addiction. *Adolescence* 2009; 44(176): 993-1004.
16. Şahin H, Topal B, Topal B. İnternet bağımlılığı üzerine bir araştırma. *Sosyal Bilimler Metinleri* 2018; (2): 118-136.
17. Kırık AM, Özkoçak V. Yeni dünya düzeni bağlamında sosyal medya ve yeni koronavirüs (covid-19) pandemisi. *Akademik Sosyal Araştırmalar Dergisi* 2020; 7(45): 133-154.
18. We Are Social. Digital around the world in April 2020. <https://wearesocial.com/blog/2020/04/digital-around-the-world-in-april-2020> (Accessed 06.09.2020).
19. Faul F, Erdfelder E, Buchner A, et al. Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behav Res Methods* 2009; 41(4): 1149-60.
20. Young KS. *Caught In The Net: How To Recognize The Signs Of Internet Addiction And A Winning Strategy For Recovery*. New York: Wiley, 1998.
21. Pawlikowski M, Altstötter-Gleich C, Brand M. Vali-dation and psychometric properties of a short version of young's internet addiction test. *Comput Human Behav* 2013; 29(3): 1212-1223.
22. Kutlu M, Savci M, Demir Y, et al. Young internet bağımlılığı testi kısa formunun Türkçe uyarlaması: Üniversite öğrencileri ve ergenlerde geçerlilik ve güvenilirlik çalışması. *Anadolu Psikiyatri Derg* 2016; 17(1): 69-76.
23. Iso-Ahola SE, Weissinger, E. Perceptions of boredom in leisure: Conceptualization, reliability and validity of the leisure boredom scale. *J Leis Res* 1990; 22(1): 1-17.
24. Kara FM, Gürbüz B, Öncü E. Leisure boredom scale: The factor structure and the demographic differences. *The Turkish Journal of Sport and Exercise* 2014; 16(2): 28-35.
25. Gürbüz S, Şahin F. *Sosyal Bilimlerde Araştırma Yöntemleri*. Ankara: Seçkin Yayıncılık, 2018.
26. Aslan E, Yazıcı A. Üniversite öğrencilerinde internet bağımlılığı ve ilişkili sosyodemografik faktörler. *Klinik Psikiyatri Dergisi* 2016; 19(3): 109-117.
27. Frangos CC, Fragkos KC, Kiohos A. Internet addiction among Greek university students: Demographic associations with the phenomenon, using the Greek version of young's internet addiction test. *International Journal of Economic Sciences and Applied Research* 2010; 3(1): 49-74.
28. Balcı Ş, Gülnar B. Üniversite öğrencileri arasında internet bağımlılığı ve internet bağımlılarının profili. *Selçuk İletişim* 2009; 6(1): 5-22.
29. Ni X, Yan H, Chen S, et al. Factors influencing internet addiction in a sample of freshmen university students in China. *CyberPsychol Behav* 2009; 12(3): 327-330.
30. Doğan M, Elçi G, Gürbüz B. Serbest zaman doyumu, serbest zamanda sıkılma algısı ve iş tatmini ilişkisi: Akademisyenler üzerine bir araştırma. *SPORMETRE Beden Eğitimi ve Spor Bilimleri Dergisi* 2019; 17(1): 154-164.
31. Kara FM, Ayverdi B. Üniversite öğrencilerinde serbest zamanda sıkılma algısı alkol kullanma nedenlerinin belirleyicisi midir? *Gazi Beden Eğitimi ve Spor Bilimleri Dergisi* 2018; 23(1): 35-42.
32. Kara FM. Internet addiction: Relationship with perceived freedom in leisure, perception of boredom and sensation seeking. *Higher Education Studies* 2019; 9(2): 131-140.
33. Wegner L, Flisher AJ, Muller M, et al. Leisure boredom and substance use among high school students in South Africa. *J Leis Res* 2006; 38(2): 249-266.
34. Aydın İ, Öncü E, Akbulut V, et al. Öğretmen adaylarında boş zaman sıkılma algısı ve psikolojik sağlık ilişkisi. *Beden Eğitimi ve Spor Bilimleri Dergisi* 2019; 21(1): 39-53.
35. Ahmadi K. Internet addiction among Iranian adolescents: A nationwide study. *Acta Med Iran* 2014; 52(6): 467-472.
36. Khan MA, Shabbir F, Rajput TA. Effect of gender and physical activity on internet addiction in medical students. *Pak J Med Sci* 2017; 33(1): 191-194.
37. Kara FM, Gürbüz B. Serbest zamanda sıkılma algısı: İnternet bağımlılığı ve algılanan sosyal yetkinlik ilişkisi. 16th International Sport Sciences Congress Book of Abstracts, 2018: 948-949.
38. Kara FM, Gürbüz B, Küçük-Kılıç S, et al. An investigation of pre-service physical education teachers' leisure boredom, life satisfaction and social connectedness. *Journal of Computer and Education Research* 2018; 6(12): 342-357.
39. Wang WC. Exploring the relationship among free-time management, leisure boredom, and internet addiction in undergraduates in Taiwan. *Psychol Rep* 2019; 122(5): 1651-1665.
40. Kwon J, Park JE, Oh JY. The study of the comparison on factors influencing internet game addiction among male middle and high school students. *Journal of the Korea Academia-Industrial Cooperation Society* 2016; 17(2): 75-86.

41. Ryu M. University students' smartphone addiction propensities according to self-efficacy and leisure-related variables. *Journal of Korean Home Management Association* 2014; 32(1): 63-79.
42. Soyer F. Smartphone addiction and leisure constraints: College students. *International Journal of Psychology and Educational Studies* 2019; 6(2): 26-34.
43. Oh SS, Caldwell LL, Oh SY. An examination of leisure constraints, participation in creative activities and hobbies, and leisure boredom in a sample of Korean adults. *World Leisure Journal* 2001; 43(2): 30-38.
44. Aydın İ, Güngörmüş HA, Gürel O, et al. Serbest zaman engelleri ile serbest zamanda sıkılma ilişkisi: Sağlık hizmetleri personeli örneği. *Uluslararası Rekreasyon ve Spor Yönetimi Kongresi Bildiri Özetleri Kitabı*, 2018: 383-384.
45. Weinstein A, Dorani D, Elhadif R, et al. Internet addiction is associated with social anxiety in young adults. *Ann Clin Psychiatry* 2015; 27(1): 4-9.
46. Hayırcı B, Sarı E. Lise öğrencilerinin akıllı telefon bağımlılık düzeyleri ile sosyal kaygı ve yalnızlık düzeyleri arasındaki ilişkinin incelenmesi. *Eğitim ve Toplum Araştırmaları Dergisi* 2020; 7(1): 61-79.
47. Kesici Ş, Şahin İ. A comparative study of uses of the internet among college students with and without internet addiction. *Psychol Rep* 2009; 105(3): 1103-1112.
48. Liu C-Y, Kuo F-Y. A Study of Internet Addiction through the Lens of the Interpersonal Theory. *CyberPsychol Behav* 2007; 10(6): 799-804.
49. Leung L. Using tablet in solitude for stress reduction: An examination of desire for aloneness, leisure boredom, tablet activities, and location of use. *Comput Human Behav* 2015; 48: 382-391.
50. Tan W-K, Lu K-J. Smartphone use at tourist destinations: Interaction with social loneliness, aesthetic scope, leisure boredom, and trip satisfaction. *Telemat Inform* 2019; 39: 69-74..

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