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The Relationship between Smartphone Addiction and Life Satisfaction: Faculty of Sport Sciences Students

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ABSTRACT

The aim of this study was to investigate the relationship between smartphone addiction and life satisfaction of the students studying at faculty of sport sciences and to determine whether these parameters differ in terms of various variables. In the study, the Smartphone Addiction Scale developed by Kwon et al. (2013) and adapted to Turkish by Noyan et al. (2015) was used to determine the level of smartphone addiction of the participants. Life Satisfaction Scale developed by Diener et al., (1985) and adapted to Turkish by Köker (1991) was used to determine the life satisfaction levels of the participants. Conventional sampling method was preferred for sample selection and face-to-face survey method was used for data collection. In the analysis of the obtained data, descriptive statistics, Independent Sample t-test, One-way ANOVA and Pearson Correlation Analysis were used. A total of 554 volunteers participated in the study: 276 males (49,8 %) and 278 females (50,2%). According to the results of the research, smartphone addiction and life satisfaction parameters had a statistically significant difference according to various variables. In addition, there was a significant negative correlation between life satisfaction and smartphone addiction. As a result, it was determined that as life satisfaction levels increased, smartphone addiction levels of participants decreased.

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Smartphone Addiction, Life Satisfaction, Sport Sciences

1. Introduction

Together with the 20th century, there have been great developments in the mass media. Both new communication tools have been invented and the number of these tools has increased considerably. In the process of time, digital revolution transformed the structure called as "smart revolution" (Yi&Yin, 2010) by creating mobile communication technologies, smartphones and tablets.

Smart devices, considered only as distant communication tools in the past, started to be used for different needs and purposes for many people by being equipped much more extensive features except for their instrumental characteristics. Smartphones have many features such as communication, internet, photography, multimedia and navigation. The use of smartphones has increased rapidly, and this rapid increase has brought about addiction and problematic use.

The increase in the use and functions of smartphones in life has led to an increase in the researches on the effects of smartphones on psycho-social fields. The fact that each telephone became a computer together with

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the improving technology has brought forward the attribution of addiction that presents a social threat as well as its useful utilization (Bulduklu & Özer, 2016).

At the basis of self-repeating behaviors, there are behavioral dependencies. The pleasurable aspect of these self-repeating behaviors can be continuously transformed into habits (Grant, 2010). As it is in any kind of dependencies, dealing much with a certain behavior reveals a pleasurable behavior in the lives of individuals, but at the same time it can create dependencies that move them away from the real world and lead stress and tension (Chakraboty, Basu & Vijaya, 2012). Işık & Kaptangil (2018) also stated that social media usage via smartphones in today's society became an indispensable part of daily life especially for university students, and they claim that this situation could be explained by associating the problem of smartphone addiction with the personal characteristics of individuals.

As a result of the researches, it was concluded that excessive use of smartphones led to a problematic behaviors of individuals (Palen, Salzman & Youngs, 2001; Paragas, 2005). Increasing functionality of smartphones has become a tool of dependence not only for interpersonal communication but also for other functions such as social media and digital games. Individuals have turned to smartphones instead of leisure activities as entertainment devices (Ekinci, Yalçın & Ayhan, 2019; Bian & Leung, 2014). This situation may negatively affect life satisfaction by preventing individuals from self-realization.

Life satisfaction was one of the issues became the focus of humanity throughout the ages, described as the result of the comparison of the individual's expectations with what the individual had (Haybron, 2004; Çevik & Korkmaz, 2014), the individual's positive evaluation of his/her own life with his/her own means (Diener et al., 1985; Veenhoven, 2000) and the combination of beliefs and desires on life (Rice, Frone & McFarlin, 1992) and the merge of the concepts of happiness and subjective well-being (Sirgy, 2012).

Life satisfaction can be considered as one of the most important basic elements that people should have in their lives in order to make sense of their lives and to be happy with a full well-being cognitively. Life satisfaction is not one's being satisfied under a certain situation, but with all aspects of the mind cognitively, permanently and comprehensively in a holistic way. Life satisfaction is the reflection of the situation of one's judging, appreciating, approving and being satisfied with his/her life consciously that s/he compare his/her life conditions with the standard that imposed to him/her as a result of his/her comparison life expectations with the current situation (Shin & Johnson, 1978; Diener, et al., 1985; Haybron, 2007). The concept of satisfaction "means achieving something desired, gaining emotional satisfaction, satisfying" (Aydoğan, 2013).

This research aimed at revealing whether the parameters affecting the relationship between smartphone addiction and life satisfaction levels of the faculty of sports sciences students differ in terms of various variables. In the literature, there are some studies related to the issue on a wide variety of variables and factors. However, there is no study related to the issue on especially university students studying at the faculty of sports sciences. Therefore, it was thought that this research would contribute to this field. Finally, the literature on the relationship between smartphone use and life satisfaction would be evaluated briefly.

2. Method

2.1. Research Model

The research was conducted based on a quantitative research design. In a population consisting of a large number of elements a general survey model, on which the survey was conducted on the whole population or on a sample taken from it, was performed in order to reach a general judgment about the population (Karasar, 2012).

2.2. Participants

A total of 554 students (276 males (49,8%) and 278 (50,2%) females) studying at Sakarya University, Faculty of Sports Sciences and selected by using convenience sampling method, were participated in the study voluntarily. In the framework of the research, it was aimed at reaching a certain part of the students of the faculty of sports sciences, a total of 600 questionnaire were conducted by face to face survey model but after eliminating the incomplete and missing ones 554 questionnaire were used for analyzing.

Table 1. Demographic Features

	Variables	n	%
Gender	Male	276	49,8
	Female	278	50,2
Age	20 and below	192	34,7
	21-23	289	52,2
	24-26	48	8,7
	27 and older	25	4,5
Department	Physical Education and Sports Teaching	102	18,4
	Sports Management	75	13,5
	Recreation	146	26,4
	Coaching	231	41,7
Grade Point Average	2.00 and below	128	23,1
	2.01-2.50	128	23,1
	2.51-3.00	157	28,3
	3.01-3.50	120	21,7

2.3. Data Collection Tool

In the research, leisure constraints and smartphone addiction scales were used as data collection tools. The form prepared to collect the data has three parts. In the first part of the form the "Personal Information Form," was used to determine the demographical and participation oriented information such as the participants' genders, ages, departments and grade point averages.

In the second part, "The Smartphone Addiction Scale", developed by Kwon et.al (2013) and adapted into Turkish by Noyan et.al (2015) was used in order to determine the smartphone addiction levels of the participants. The scale comprises a total of 10 questions, with a six-point Likert type scaling. The scale points vary from 10 to 60. Also the test/repeat test reliability coefficient was found as 0.926.

In the third part, "Life Satisfaction Scale" developed by Diener et.al., (1985) and adapted to Turkish by Köker (1991) was used in order to determine the life satisfaction levels of the participants. The answers were rated in a 5-point likert type scale (1 = definitely not expressing me, 5 = definitely expressing me). Köker (1991) found that the test-retest coherence coefficient of the scale, which was performed three weeks apart, was 0.85. The scale points vary from 5 to 35.

2.4. Data Analysis

SPSS package software program was used in the analysis of the data obtained from the research. Skewness and kurtosis values were checked in order to determine whether the data showed a normal distribution. These values were checked and assessed from +2 to -2 (George & Mallery, 2001). As a result of the assessment, it was seen that the data were normally distributed. Accordingly, as well as descriptive statistics, Independent Sample t-test was used for paired comparison, One-way ANOVA was used for the comparison of more than two groups, and Pearson Correlation Analysis was used to determine the relation between the variables.

Table 2. Descriptive Statistics of Research Variables

Variables	N	Min.	Max.	Mean	Sd.	Skewness	Kurtosis	Cronbach Alpha
Life Satisfaction	554	10,00	60,00	30,64	11,24	,131	-,480	,880
Smartphone Addiction	554	5,00	35,00	20,05	7,12	-,376	-,609	,905

In addition to the mean and standard deviation values of the research variables, the variables were evaluated by considering the skewness and kurtosis values of the data if they had a normal distribution. The findings showed that the data were close to normal distribution and parametric analyzes could be applied. On the other hand, when the internal consistency coefficients of the variables were examined, it was determined that Cronbach α values ranged from .880 to .905 (Coşkun et.al., 2017; Büyüköztürk, 2016).

3. Results

Table 3. Difference Analysis of Smartphone Addiction and Life Satisfaction Levels According to the Gender of the Participants

Variables	Gender	N	Mean	Sd.	t	p
Smartphone Addiction	Male	276	30,01	10,89	-1,312	,190
	Female	278	31,26	11,56		
Life Satisfaction	Male	276	19,80	7,47	-,834	,404
	Female	278	20,30	6,76		

When the results of the analysis were examined, it was determined that there was not a statistically significant difference in smartphone addiction and life satisfaction variables in terms of gender ($p>0,05$).

Table 4. Difference Analysis of Smartphone Addiction and Life Satisfaction Levels According to the Ages of the Participants

Variable	Age	N	Mean	Sd.	F	p	Post-Hoc
Smartphone Addiction	20 and below ^a	192	32,95	10,78	5,045	,002	a-b,d
	21-23 ^b	289	29,77	11,15			
	24-26 ^c	48	28,88	12,55			
	27 and older ^d	25	26,28	10,35			
	Total	554	30,64	11,24			
Life Satisfaction	20 and below ^a	192	19,92	7,09	,351	,788	-
	21-23 ^b	289	20,04	7,07			
	24-26 ^c	48	20,96	7,60			
	27 and older ^d	25	19,40	7,26			
	Total	554	20,05	7,12			

According the Table 4, while it was determined that there was no statistically significant difference in the variable of life satisfaction ($p>0,05$), a statistically significant difference was determined in the smartphone addiction in terms of age ($p<0,05$). Accordingly, it was seen that there was a statistically significant difference between the smartphone addiction levels of the participants at the age of 20 and below and the ones between the ages of 21-23 and those at the age of 28 and older.

Table 5. Difference Analysis of Smartphone Addiction and Life Satisfaction Levels in Terms of Participants' Department

Variable	Department	N	Mean	Sd.	F	p	Post-Hoc
Smartphone Addiction	Physical Education and Sports Teaching ^a	102	29,99	12,37	4,245	,006	b-c,d
	Sports Management ^b	75	26,76	10,15			
	Recreation ^c	146	31,04	9,92			
	Coaching ^d	231	31,93	11,59			
	Total	554	30,64	11,24			
Life Satisfaction	Physical Education and Sports Teaching ^a	102	22,24	6,16	5,385	,001	a-b,c
	Sports Management ^b	75	18,97	7,66			
	Recreation ^c	146	18,82	7,62			
	Coaching ^d	231	20,21	6,80			
	Total	554	20,05	7,12			

When Table 5 was examined, it was determined that there was a statistically significant difference in the variable of smartphone addiction and life satisfaction levels of the participants in terms of their departments ($p < 0,05$). Accordingly, it was seen that there was a statistically significant difference between the smartphone addiction levels of the individuals studying at the department of sports management and those studying at the department of coaching. In addition, there was a statistically significant difference between the life satisfaction levels of the students studying at physical education and sports teaching, those studying at the department of sports management and the recreation department.

Table 6. Difference Analysis of Smartphone Addiction and Life Satisfaction Levels in Terms of the Grade Point Average of the Participants

Variable	Grade Point Averages	N	Mean	Sd.	F	P	Post-Hoc
Smartphone Addiction	2,00 and below ^a	128	30,27	10,81	2,214	,066	-
	2,01-2,50 ^b	128	31,85	11,68			
	2,51-3,00 ^c	157	31,15	11,29			
	3,01-3,50 ^d	120	28,43	10,54			
	3,51-4,00 ^e	21	34,29	13,12			
	Total	554	30,64	11,24			
Life Satisfaction	2,00 and below ^a	128	18,30	7,61	3,359	,010	a-c,d
	2,01-2,50 ^b	128	19,65	6,42			
	2,51-3,00 ^c	157	20,96	7,31			
	3,01-3,50 ^d	120	21,00	6,91			
	3,51-4,00 ^e	21	21,00	6,23			
	Total	554	20,05	7,12			

When the results of the analysis were examined, it was determined that there was no difference in the variable of smartphone addiction in terms of grade point averages ($p > 0,05$). On the other hand, a statistically significant difference was determined in the life satisfaction in terms of grade point averages ($p < 0,05$). Accordingly, it was seen that there was a difference between the participants having the grade point average of 2.00 and below and those having 2,51-3,00 and 3,01 and 3,50.

Table 7. Correlation Analysis of Participants' Smartphone Addiction and Life Satisfaction Levels

Variables		Smartphone Addiction	Life Satisfaction
Smartphone Addiction	r	1	-,113**
	p		,008
Life Satisfaction	r	-,113**	1
	p	,008	

$p < 0,001^{**}$; N=554

When the analysis results were examined, it was determined that there was a negative correlation between smartphone addiction and life satisfaction variable ($p < 0,001$).

4. Discussion and Conclusion

The use and development of smartphones, one of the most important tools of modern technology has changed the way people communicate, gather information, and access the Internet (Hayes et al., 2016). The use of smartphones out of purpose and overuse causes negative consequences such as addiction (Balta & Horzum, 2008). Researches in the related literature have reported that individuals who perceive negative emotions such as depression and anxiety tend to be highly dependent on smartphone addiction (Ahn, 2016; Demirci et al., 2015). Depression and loneliness have negative relations with life or psychological well-being (Çardak, 2013; Carden & Rettew, 2006). In this respect, the aim of this study was to investigate the relationship between smartphone addiction and life satisfaction and to determine whether these parameters differ in terms of various variables.

When the results of the analysis were examined, it was found that there was no statistically significant difference in smartphone addiction and life satisfaction according to gender. In the literature, there are studies supporting the results related to smartphone addiction in this study (Çalışkan et al., 2017; Minaz & Çetinkaya-Bozkurt, 2017; Bavlı et al., 2018; Dikeç & Kebapçı, 2018). It is thought that this result may be caused by the rapid development of technology and the fact that almost every individual has a smartphone. There are also studies in the literature that do not support the results found in this study (Keskin et al. 2018; Roberts, Yaya & Manolis, 2014; Kwon et al., 2013; Noyan et al., 2015; Van Deursen et al., 2015; Aljomaa et al., 2016). This may be due to the age group of the studies and environmental factors of the sample. In the literature, there are studies supporting the results related to life satisfaction in this study (Hampton & Marshall, 2000; Hintikka et al., 2001; Joronen et al., 2002).

When the results of the analysis were examined, it was determined that there was no statistically significant difference in life satisfaction according to age and it can be seen that the satisfaction levels of all age groups are moderate. This situation is thought to be due to the fact that the working group consists of university students who have not yet reached the stage of self-realization.

When the results of the analysis were examined, it was seen that there was a statistically significant difference in smartphone addiction according to age. As the age of the participants increase, their levels of smartphone addiction decrease. In the literature, there are studies supporting the results related to this study (Augner & Hacker, 2011; Kwon et al., 2013; Van Deursen et al., 2015; Haung et al., 2015; Kuyucu, 2017; Bavlı et al., 2018). It is thought that this situation may because of the fact that university students are generally leave their phones or decrease using them when they have more exams because their responsibilities began to increase as their ages increase.

When the results of the analysis were examined, it was determined that there was a statistically significant difference in the variable of smartphone addiction and life satisfaction levels of the participants in terms of the departments.

When the findings related to the main purpose of the study were examined, it was determined that there was a negative correlation between smartphone addiction and life satisfaction variables. Accordingly, as the life satisfaction levels of the participants increased, the levels of smartphone addiction decreased. It was supported by studies in the literature that individuals with low life satisfaction levels were more smartphone addicts (Chiu 2014; Chang 2015; Demirci et al., 2015; Ahn, 2016).

Samaha and Hawi (2016) investigated the relation between the risk of smartphone addiction and life satisfaction mediated by stress and academic performance among totally 300 university students. The researchers also examined whether life satisfaction mediated by stress and academic performance would make smartphone addiction easy. As a result, the researchers found that the risk of smartphone addiction was positively related to the perceived stress, but negatively related to life satisfaction. In the same research, while a positive relation occurred between academic performance and life satisfaction, it was observed that the risk of smartphone addiction and academic performance were related negatively.

In this study, aimed at examining the relationship between smartphone addiction and life satisfaction levels of the faculty of sports sciences students, and analyzing whether these parameters differ in terms of several variables, it was determined that there was a statistically negative difference between the smartphone addiction and life satisfaction levels of the participants.

5. Limitations of the Study and Further Research

The research has some limitations. First of all, the scale was used to measure the smartphone addiction. Measurements of mind waves, biological other measurements (Randler, Horzum, & Vollmer, 2014) the measurements based on smartphone usage, time and data can be made in addiction measurements. In addition, studies were carried out by the students of Sakarya University of Applied Sciences. In order to obtain more generalizable data, similar or different studies can be performed by collecting data from students of different universities. In the study, the data of smartphone addiction was taken as a discontinuous variable. For the future studies, structural equation modeling can be performed with continuous data. In this model studies, smartphone addiction can be examined with psychological isolation, anxiety, depression, social skills, personality patterns, academic achievement and traffic accidents.

References

- Ahn, J. (2016). A Study on The Smartphone Use Behavior and Addiction of University Students: Focused on Effect of Depression, Impulsivity and Interpersonal Relation, Campus Life. *Journal of Communication Science*, 16(4): 128–162
- Aljomaa, S.S., Al.Qudah M.F., Albursan, I. S., Bakhiet, S.F., Abduljabbar, A.S. (2016). Smartphone Addiction Among University Students in The Light of Some Variables. *Computers in Human Behavior*, 61; 155-164
- Augner, C., & Hacker, G. (2011). Associations Between Problematic Mobile Phone Use and Psychological Parameters in Young Adults. *Int J Public Health*. 57(2): 437–441
- Aydoğan, R. (2013). Türkçe Sözlük. Genişletilmiş Yeni Basım, Renkli, *Evrensel İletişim Yayınları*, Ankara
- Balta, Ö. Ç., & Horzum, M. B. (2008). The Factors That Affect İnternet Addiction of Students in a Web Based Learning Environment. *Journal of Faculty of Educational Sciences*, Ankara University, 41(1): 187-205
- Bavlı, Ö., Katra, H., & Günar, B.B. (2018). Investigation of Smartphone Addiction Levels Among University Students. *International Journal of Cultural and Social Studies (IntJCSS)*, June; 4(1): 326-333
- Bian, M., & Leung, L. (2014). Linking Loneliness, Shyness, Smartphone Addiction Symptoms and Patterns of Smartphone Use to Social Capital. *Social Science Computer Review*, 33(1): 61-79
- Bulduklu, Y., & Özer, N.P. (2016). Gençlerin Akıllı Telefon Kullanım Motivasyonları. *İnsan ve Toplum Bilimleri Araştırma Dergisi*, 5(8): 2963-2986
- Büyüköztürk, Ş. (2016). Sosyal Bilimler İçin Veri Analizi El Kitabı. *Pegem Akademi*, 22. Baskı, Ankara

- Carden, R., & Rettew, S. (2006). Internet Chat Room Use, Satisfaction With Life and Loneliness. *Psychological Reports*, 98(1): 121–122
- Chakraborty, K., Basu, D., & Vijaya, K.G. (2012). Internet Addiction: Consensus, Controversies and The Way Ahead. *East Asian Arch Psychiatry*, 20; 123-132
- Chang, Y. O. (2015). The Effects of mothers' Smartphone Addiction on Parenting Efficacy and Parenting Attitude. *Korean Journal of Childcare and Education*, 11(2): 109–129
- Chiu, S.I. (2014). The Relationship Between Life Stress and Smartphone Addiction on Taiwanese University Student: A Mediation Model of Learning Self-Efficacy and Social Self-Efficacy. *Computers in Human Behavior*, 34; 49–57
- Coşkun, R., Altunışık, R., & Yıldırım, E. (2017). Sosyal Bilimlerde Araştırma Yöntemleri: SPSS Uygulamalı. *Sakarya Yayıncılık*, 9. Baskı, Sakarya
- Çalışkan, N., Yalçın, O., Aydın, M., & Ayık, A. (2017). BÖTE Öğretmen Adaylarının Akıllı Telefon Bağımlılık Düzeylerini Belirlemeye Yönelik Bir Çalışma. *International Journal of Eurasia Social Sciences*, 8(26): 111-125
- Çardak, M. (2013). Psychological Well-Being and Internet Addiction among University Students. *The Turkish Online Journal of Educational Technology*, 12(3): 134-141
- Çevik, K.N. & Korkmaz, O. (2014). Türkiye'de Yaşam Doyumu ve İş Doyumu Arasındaki İlişkinin İki Değişkenli Sıralı Probit Model Analizi. *Niğde Üniversitesi İİBF Dergisi*, 7(1): 126-145
- Demirci, K., Akgönül, M., & Akpınar, A. (2015). Relationship of Smartphone Use Severity with Sleep Quality, Depression, and Anxiety in University Students. *Journal of Behavioral Addictions*, 4(2): 85-92
- Diener E., Emmons R.A., Larsen R.J., & Griffin S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49(1): 71-75
- Dikeç, G., & Kebapçı, A. (2018). Smartphone Addiction Level Among a Group of University Students. *Journal of Dependence*, 19(1): 1-9
- Ekinci, N. E., Yalçın, İ., & Ayhan, C. (2019). Analysis of Loneliness Levels and Digital Game Addiction of Middle School Students According to Various Variables. *World Journal of Education*, 9(1): 20-27
- George, D., & Mallery, P. (2001). SPSS for Windows Step by Step: A Simple Guide and Reference 10.0 Update. Third Edition, Needham Heights, MA: Allyn & Bacon
- Grant, J.E., Potenza, M.N., Weinstein, A. & Gorelick DA. (2010). Introduction to Behavioral Addictions. *Am J Drug Alcohol Abuse*, 36(5): 233-241
- Hampton, N. Z. ve Marshall, A. (2000). Culture, Gender, Self-Efficacy and Life Satisfaction: A Comparison Between Americans and Chinese People with Spinal Cord İnjuries. *Journal of Rehabilitation*, 66(3): 21-29
- Haung, S., Castro, R.P., Kwon, M., Filler, A., Kowatsch, T., & Schaub, M.P. (2015). Smartphone Use and Smartphone Addiction among Young People in Switzerland. *Journal of Behavioral Addictions*, 4(4): 299-307
- Haybron, D.M. (2004). Happiness and The Importance of Life Satisfaction, Delivered at the Department of Philosophy, University of Arizona.
- Haybron, D.M. (2007). Life Satisfaction Ethical Reflection and The Science of Happiness. *Journal of Happiness Studies*, 8(1): 99-138.
- Hayes, J. F., Maughan, D. L., Grant-Peterkin H. (2016). Interconnected or Disconnected? Promotion of Mental Health and Prevention of Mental Disorder in The Digital Age. *Br J Psychiatry*, March, 208(3): 205–207
- Hintikka, J., Koskela, T., Kontula, O., et.al., (2001). Religious Attendance and Life Satisfaction in The Finnish General Population. *Journal of Psychology and Theology*, June 1, 29(2): 158-164

- Işık, M. & Kaptangil İ. (2018). Akıllı Telefon Bağımlılığının Sosyal Medya Kullanımı ve Beş Faktör Kişilik Özelliği ile İlişkisi: Üniversite Öğrencileri Üzerinden Bir Araştırma. *İnsan ve Toplum Bilimleri Araştırma Dergisi*, 7(2): 695-717
- Joronen, K., Astedt-Kurki P., Marja-Terttu, T., & Pekka, L. (2002). Relationships among Adolescent Subjective Well-Being, Health Behavior and School Satisfaction. *Journal of School Health*, September, 72(6): 243-249
- Karasar, N. (2012). Bilimsel Araştırma Yöntemi. *Nobel Yayıncılık*, Ankara.
- Keskin, T., Ergan, M., Başkurt, F., Başkurt, Z. (2018). Üniversite Öğrencilerinde Akıllı Telefon Kullanımı ve Baş Ağrısı İlişkisi. *Adıyaman Üniversitesi Sağlık Bilimleri Dergisi*, 4(2): 864-873
- Köker, S. (1991). *Normal ve Sorunlu Ergenlerin Yaşam Doyumu Düzeyinin Karşılaştırılması. Yüksek Lisans Tezi*, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.
- Kuyucu, M. (2017). Gençlerde Akıllı Telefon Kullanımı ve Akıllı Telefon Bağımlılığı Sorunsalı: Akıllı Telefon (Kolik) Üniversite Gençliği. *Global Media Journal TR Edition*, 7(14): 328-359
- Kwon, M, Kim, D.J., Cho, H., & Yang, S. (2013). The Smartphone Addiction Scale: Development and Validation of a Short Version for Adolescents. *Plos One*, 8(12): e83558
- Kwon, M., Lee, J.Y., Won, W.Y., Park, J.W., Min, J.A., Hahn, C., et. al., (2013). Development and Validation of a Smartphone Addiction Scale (SAS). *Plos One*, 8(2):e56936
- Minaz, A., & Çetinkaya-Bozkurt, Ö. (2017). Üniversite Öğrencilerinin Akıllı Telefon Bağımlılık Düzeylerinin ve Kullanım Amaçlarının Farklı Değişkenler Açısından İncelenmesi. *Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (Özel Sayı) Ekim, 9(21): 268-286
- Noyan, C.O., Darçın, A.E., Nurmedov S., Yılmaz, O., & Dilbaz, N. (2015). Akıllı Telefon Bağımlılığı Ölçeğinin Kısa Formunun Üniversite Öğrencilerinde Türkçe Geçerlilik ve Güvenilirlik Çalışması. *Anadolu Psikiyatri Dergisi*, 16(1): 73-81
- Palen, L., Salzman, M., & Youngs, E. (2001). Discovery and Integration of Mobile Communications in Everyday Life. *Personal and Ubiquitous Computing*, Springer-Verlag London Ltd, 5(2): 109-122
- Paragas, F. (2005). Being Mobile with The Mobile: Cellular Telephony and Renegotiations of Public Transport as Public Sphere. *Mobile Communications*, January, 31(2): 113–129
- Randler, C., Horzum, M. B., & Vollmer, C. (2014). Internet Addiction and Its Relationship to Chronotype and Personality in a Turkish University Student Sample. *Social Science Computer Review*, 32(4): 484-495
- Rice, R.W., Frone, M.R., McFarlin, D.B. (1992). Work-Nonwork Conflict and the Perceived Quality Of Life, *Journal of Organizational Behavior*, 13(2): 155-168
- Roberts, J.A., Yaya, L.H.P., Manolis, C. (2014). The Invisible Addiction: Cell-Phone Activities and Addiction Among Male and Female College Students. *Journal of Behavioral Addictions*, 3(4): 254–265
- Samaha, M., & Hawi, N.S. (2016). Relationships among Smartphone Addiction, Stress, Academic Performance, and Satisfaction with Life. *Computers in Human Behavior*, 57; 321-325
- Shin, D.C., & Johnson, D.M. (1978). Avowed Happiness as an Overall Assessment of The Quality of Life. *Social Indicators Research*, 5(1-4): 475-492
- Sirgy, M. J., (2012). *Psychology of Quality of Life: Hedonic Well-Being, Life Satisfaction, and Eudaimonia. Social Indicators Research Series*, Springer Dordrecht Heidelberg, London
- Van Deursen, A.J.A.M., Bolle, C.L., Hegner, S.M., & Kommers, P.A.M. (2015). Modeling Habitual and Addictive Smartphone Behavior The Role of Smartphone Usage Types, Emotional Intelligence, Social Stress, Self-Regulation, Age, and Gender. *Computers in Human Behavior*, 45; 411–420
- Veenhoven R. (2000). The Four Qualities of Life: Ordering concepts and Measures of The Good Life. *Journal of Happiness Studies*, 1(1): 39

Yi H.H., & Yin S.L. (2010). Uses and Gratifications of Mobile Application Users. *International Conference on Electronics and Information Engineering (ICEIE)*, 1; 315-319