

The Relationship between Smartphone Addiction and Perceived Social Support of University Students'

Research Article

Necdet KONAN¹, Emine DURMUŞ², Aslı AĞIROĞLU BAKIR³, Duygu TÜRKÖĞLU⁴

¹ Inonu University, Faculty of Education, Department of Educational Sciences, Division of Educational Administration and Supervision, Malatya, Turkey ORCID: 0000-0001-6444-9745

² Inonu University, Faculty of Education, Department of Educational Sciences, Division of Guidance and Psychological Counseling, Malatya, Turkey ORCID: 0000-0002-7102-5833

³ Ministry of National Education, Turgut Özal Anatolian High School, Malatya, Turkey ORCID: 0000-0002-5352-572X

⁴ University of Health Sciences, Vocational School of Health Services, Department of Management and Organization, İstanbul, Turkey ORCID: 0000-0003-0355-1169

To cite this article: Konan, N., Durmuş, E., Ağiroğlu Bakır, A., Türkoğlu, D. (2018). The Relationship between Smartphone Addiction and Perceived Social Support of University Students', *International Online Journal of Educational Sciences*, 10(5), 244-259.

ARTICLE INFO

Article History:

Received: 03.08.2018

Available online:

05.11.2018

ABSTRACT

The main purpose of this research is to determine the relationship between university students' social support perceptions and smartphone addiction. For this purpose, a quantitative research was carried out. İnönü University students in Turkey are the population of the research and 496 senior students from these students constitute the sample. The data for the study were obtained through the Multidimensional Scale of Perceived Social Support (MSPSS) and The Smartphone Addiction Scale-Short Version (SAS-SV). In the data analysis, descriptive statistics, t test and Pearson Moments Correlation coefficients were used. As a result of the research, it was found that university students' scores on social support perceptions were close to high level of social support; it was determined that the level of perceived social support of female university students was statistically higher than male university students. Also, university students' smartphone addiction scores are below the average; the smartphone addiction levels of university students do not differ significantly according to gender. Finally, it was found that there was a statistically low, negative and significant relationship between university students' social support perceptions and smartphone addictions.

© 2018 IOJES. All rights reserved

Keywords:

University students, perceived social support, smartphone addiction.

* Corresponding author's address: University of Health Sciences, Vocational School of Health Services, Department of Management and Organization, 34668, İstanbul, Turkey
Telephone: + 90 216 346 3636
Fax: +90 216 418 96 20
e-mail: turkogluuyguu@gmail.com
DOI: <https://doi.org/10.15345/iojes.2018.05.016>

Introduction

There are a lot of things which impact the academic achievement of university students and the nature of their personal lives. It can be argued that one of these is the personal perception of the student as to whether social relations are sufficiently supportive. Especially, the natural support provided by family, friends and close encounters (Yılmaz, Şar and Civan, 2015) plays a contributing role in the relations of the university student.

Social relations form the basis of human life (Cüceloğlu, 1992). The place of the individual in his / her social world passes through the social relations he / she has established with other people (Kozaklı, 2006). Healthy individuals have a wide social relationship through the roles such as children, parent, friend. In these roles, if the individual feels loved, valuable and assisted, he / she feels happy and safe. Otherwise, if social relations are inadequate and problematic, the individual will often be at risk of developing psychological and physical illness with the feeling of helplessness and worthlessness (Görgü, 2005). Social support can be defined as the social and psychological support obtained from the individual's environment (Yıldırım, 1997). Social support is considered as a basic need for sharing the problems of individuals in relation to their family and friends, for being in harmony with the environment and for spiritual health (Özkahraman, Demir and Gökdoğan 2010). Social support consists of a wide range of things such as, who the individual gets support from, the number of these people, the degree of closeness, how important the support is to the person and how much of the person's needs are met (Yıldırım, 2004). People who receive social support can become more challengers to overcome problems and to produce solutions in terms of social and psychological problems.

When the literature is examined in terms of social support, it is seen that social support is the subject of researches with its different dimensions. When these researches are examined, it is seen that social support has positive effects on physical and mental health (Banaz, 1992; Bayram, 1999; Ell, 1996; Meehan, Durlak and Braynt 1993) and there is a positive relationship between social support and self-acceptance (Başer, 2006), well-being (Doğan, 2004), emotional intelligence (Bayraktar, 2011), academic achievement (Yıldırım, 1998, 2006) psychological well-being (Malkoç and Yalçın, 2015) and democratic parental attitudes (Çeçen, 2008). On the other hand, there is a negative correlation between perceived social support and loneliness (Güngör, 1996; Yılmaz, Yılmaz, & Karaca, 2008), negative parental attitudes (Çeçen, 2008), anger and hopelessness (Dil, & Aykanat Girgin, 2016).

Social support strengthens psychological endurance; it is believed that the social support obtained within the family and outside the family enables the individual to control the stressful situation and the possible negative consequences. Thus, it can be said that this power, which the individual has, leads to a feeling that the individual is not alone in his problems, leading to a more positive perception of the future. It can be argued that this result causes a high level of psychological endurance in the individual (Terzi, 2008). It is seen that as perceived social support from family increases, positive self-perceptions of the individuals also increase; similarly the perception of high social support decreases the anxiety (Güçlü, Değirmen and Uncu, 2016). Besides these, decrease of social support received from friends and community increase internet overuse (Uz Baş, Öz Soysal and Aysan, 2016). In addition, it is seen that the increase of perceived social support in international university students increases the academic adaptation (Cura and Işık, 2016) and the increase of perceived social support decreases hopelessness and anger (Dil and Aykanat Girgin, 2016).

It is possible to mention the innovations that modern life has brought to individuals lives. Among them, the use of smartphones is perhaps the one which has started one of the most radical changes. The rapid change and transformation in technology has led to the use of telephones, originally intended only for communication, to be used beyond these features. Especially smartphones have undertaken various functions in this context. This has been achieved to the extent that it can affect users' daily lives, personal needs and interpersonal relationships.

Ever since they came into our lives, smartphones have quickly spread across the world and also in our country; moreover, the interest in them has increased steadily (Kalba, 2008). As a result of various studies investigating the reasons for using the mobile phone, it has been revealed that the phone is used as a symbol of status rather than necessity (Özcan and Koçak, 2003; Katz and Sugiyama, 2006). Some of the uses of telephone, which have reached the level of addiction, are also among the topics studied in these studies (Ayhan and Çavuş, 2014). Çakır and Demir (2014) state in their research that social factors do not have a significant effect on smartphone buying preferences.

However, studies on smartphone addiction have been conducted for students in many different learning stages. Although research on smartphone addiction is carried out even at preschool level (Park and Park, 2014), more research has been done on high school students (Çakır and Oğuz, 2017; Doğan and İlçin Tosun, 2016; Park, Hyun, Kim, and Lee, 2014; Yılmaz, Şar, and Civan, 2015). However, it seems that smartphone addiction studies for university students, who are more likely to use smartphones (Aktaş and Yılmaz, 2017; Ay, 2013; Bulduklu, and Özer, 2016; Çalışkan, Yalçın, Aydın and Ayık, 2017; Çetinkaya Bozkurt and Minaz, 2017; Chiu, 2014; Emanuel, et al., 2015; Erdem, Kalkın, Türen and Deniz, 2016; Erdem, Turen and Kalkın, 2017; Gezgin, 2017; Jiang and Zhao, 2016; Kahyaoğlu Süt, Kurt, Uzal and Özdilek, 2016; Kuang-Tsan and Fu-Yuan, 2017; Özbek, Alnaçık, Koç, Akkılıç and Kaş, 2014; Park and Lee, 2014; Roberts, Pullig and Manolis, 2015; Samaha ve Hawi, 2015; Tao, Wu, Zhang, Tong, Hao, and Tao, 2017; Yang and Kim, 2015), are the most intensive study area.

It is possible to see that these researches are generally carried out in three different areas if the field of educational sciences is examined. (a) Researches aimed at determining the preferences of users for smartphone choices and the reasons for changing smartphones constitute one of these research areas. (b) Problematic mobile phone use is also becoming widespread. (c) The most intensive and widespread area of research is based on no mobile phone phobia (Nomophobia). It can be argued that the results of these surveys have risen to compete with other addictions in terms of the frequency of use, the prevalence of smartphones, and the negative emotions people experience in their absence.

The relationship between internet use and psycho-social health is a phenomenon that attracts great attention in the academic literature (Caplan, 2005). The fact that the sole social interactions of people are via the internet plays a major role in the development of pathological internet usage (Uz Baş, Öz Soysal and Aysan, 2016). Based on the idea that self-esteem and social support seeking are important factors (Karaman and Kurtoğlu, 2009), the perceived social support positively affects the psychological well-being (Malkoç and Yalçın, 2015), the social support increases the psychological endurance (Terzi, 2008) and the lack of social support constitutes a risk factor for internet addiction (Özcan and Buzlu 2005). When the literature is examined, it is seen that the researches on the psychological impact and social consequences of the smart phone addiction are very limited. Although social support is examined in relation to variables such as loneliness, anger, and academic failure, etc. there is not enough research on the relationship between smartphone addiction and its relation with social support. In this study, social support perception and smart phone addiction were studied and investigated together. It is thought that this research's results are important in terms of emphasizing social support in smart phone addiction which is one of the most studied and unsolved problems. It is expected that the results of this research will contribute to the experts working on smartphone addiction, social media or internet addiction.

The main purpose of this research is to determine the relationship between university students' social support perceptions and smartphone addiction. For this purpose, the following questions were answered:

- (1) What is the level of social support perception of university students?
- (2) What is the level of smartphone addiction of university students?

(3) Is there a meaningful relationship between university students' social support perceptions and their smartphone addiction?

Method

Research Model

This study conducted as a descriptive correlation research to determine the relationship between social support perceptions and smartphone addiction of university students.

Population and Sample

The population of the research consists of undergraduate students from İnönü University in Turkey. The sample is 496 students who were determined randomly from this population and responded to the instruction of the data collection tool. Students are studying in different classes of undergraduate programs of the Faculty of Education in the academic year of 2016-2017. 374 of the students were female and 122 of them were male.

Data Collection Tools

The data for the study were obtained through the Multidimensional Scale of Perceived Social Support (MSPSS) and The Smartphone Addiction Scale-Short Version (SAS-SV). Information on the scales used as data collection tools are given below:

Multidimensional Scale of Perceived Social Support (MSPSS). This scale, consisting of 12 items rated at 7 intervals, was developed by Zimet, et al. (1988) and Zimet, et al. (1990). MSPSS is a psychometrical instrument as a self-explanatory 12 item inventory. Internal and test retest reliability have been demonstrated as well as strong validity and moderate construct validity. Subjects included 136 female and 139 male university undergraduates. Three subscales, each addressing a different source of support, were identified and found to have strong validity: a) Family, b) Friends, and c) Significant Other. High levels of perceived social support were associated with low levels of depression and anxiety symptomatology as measured by the Hopkins Symptom Checklist (Zimet, et al., 1990). The reliability score of total scale was .88 according to Zimet, et al (1990).

MSPSS was adapted to Turkish by Eker, Arkar, and Yıldız (2001). As in the original of the scale, 3 sub-dimensions, each consisting of 4 items, were determined. Each item is graded using a 7-interval scale. The high score obtained from the scale indicates that perceived social support is high. It was reported by Eker, Arkar and Yılmaz (2001) that the validity analysis of MSPSS yielded sufficient results, had high internal consistency and supported the validity of the correlation with other scales.

According to the results obtained at this study, The Kaiser normalization test extracted three factors for the principal component factor analysis. At the exploratory factor analysis, the three-dimensional structure of the scale describes 76% of the total variance. Factor load values of items according to the dimensions are presented in Table 1. The internal consistency coefficient of the scale was .861 at this study. This value indicates good internal consistency for the scale as a whole.

Table 1. Factor load values of MSPSS according to the dimensions

MSPSS Item	Factors		
	Significant Other	Friends	Family
2	.92		
5	.90		
10	.90		
1	.89		
12		.86	
9		.86	
7		.85	
6		.83	
4			.85
3			.81
11			.79
8			.78

The Smartphone Addiction Scale-Short Version (SAS-SV). SAS-SV is a measure for the assessment of smartphone addiction developed by Kwon et al (2013). Researchers obtained the data from 540 students in the South Korea. With expert reviews based on the validity, 10 out of 33 questions were selected for the final set of questions. Obtained Cronbach's alpha correlation coefficient for the SAS-SV was 0.91 and the total mean was 25.26. Researchers were investigate the correlations between Smartphone Addiction Scale (SAS), Smartphone Addiction Proneness Scale (SAPS) and The Korean Self-Reporting Internet Addiction Scale Short-Form (KS-scale) in order to determine the concurrent validity of the SAS-SV. High correlation was determined between SAS and SAPS and moderate correlation was determined between KS-scale. In addition researchers performed ROC analysis in order to predict smartphone addiction. 90 boys and 60 girls underwent consultation with clinical psychologists. The symptoms of addiction, tolerance and withdrawal, were exhibited by 15 boys and 16 girls. They were considered as addicted to smartphones. The cut-off value of SAS-SV was determined based on the consultation results with the clinical psychologists. In boys, the cut-off value was determined 31 and for the girls the cut-off value was 33. Researchers suggested that the SAS-SV can be used to identify a potential high-risk group for smartphone addiction, both in the community and educational fields. The scale is coded from 1 (fully disagree) to 6 (fully agree).

The adaption of the SAS-SV was done by Noyan, Enez Darçın, Nurmedov, Yılmaz and Dilbaz (2015). The SAS-SV is composed of 10 items and rated by Likert scale grading. Scale items are scored from 1 to 6 and scale scores ranged from 10 to 60. As the score obtained from the test increases, also the risk increases for addiction. The scale has one factor and no sub-dimensions. Chronbach's alpha coefficient of the scale was 0.867 and had a high reliability. Reliability coefficient of test/retest was 0.926 (Noyan, Enez Darçın, Nurmedov, Yılmaz and Dilbaz, 2015).

In the exploratory factor analysis for this study, a one-dimensional structure was determined as in the original study of the scale and in the Turkish adaptation study. The calculated factor load values for each item are given at Table 2. As seen at Table 2 items had high loading on factor. As a one-dimensional structure, the total variance rate explained by the items is 52%. Cronbach's coefficient alpha was obtained for the scale as a whole scale. The reliability of total scale was .897. This value indicates good internal consistency for the scale as a whole. The cut-point of SAS-SV ≥ 31 and ≥ 33 for male and female participants were applied as suggested by Kwon et al (2013).

Table 2. Factor load values of SAS-SV

SAS-SV Item	
1	.68
2	.75
3	.66
4	.72
5	.77
6	.73
7	.76
8	.61
9	.77
10	.72

Analysis of Data

In the analysis of the data, the standard deviation, frequency, percentage and arithmetic mean of the responses graded by the participants for each scale were calculated. The t-test was used in binary comparisons to determine whether there was a difference between the social support perception of the university students and the smartphone addiction according to the independent variables. The Pearson Moments Multiplication Correlation coefficients were calculated to determine the direction and level of this relationship between the social support perception of the university students and smartphone addiction.

Findings

Findings related to the data obtained in the direction of the research purpose are presented below in order.

University Students' Social Support Perception Level

The lowest and highest scores, arithmetic mean and standard deviation scores of the scale were calculated on the data obtained to determine the social support perception level of university students and the findings are presented in Table 3.

Table 3. University students' social support perception level

	n	M	Sd	Lowest Score	Highest Score
Social Support Perception	496	63.88	13.92	14	84

When Table 3 is examined, it is seen that the university students' scores on social support perceptions are close to high level of social support.

The t-test was conducted to determine whether the levels of social support perceptions of university students were significantly different according to gender, and the findings are given in Table 4.

Table 4. T-test results regarding social support perception levels of university students by gender variable

Gender	n	M	Sd	df	t	p
Female	374	64.81	13.10	494	2.63	.009*
Male	122	61.01	15.88			

* p < .05

As seen in Table 4, it was determined that the mean of social support perception of female university students (64.81) was higher than that of male university students (61.01). When the table is examined, it is seen that the perceived social support of university students were significantly different according to gender [$t(494) = 2.63, p < 0.01$].

University Students' Smartphone Addiction Level

The lowest and highest scores, arithmetic mean, and standard deviation scores of the scale were calculated on the data obtained to determine the smartphone addiction level of university students and the findings are given in Table 5.

Table 5. University students' smartphone addiction level

	n	M	Sd	Lowest Score	Highest Score
Smartphone Addiction	496	27.98	10.97	10	60

When Table 5 is examined, it is seen that university students' scores on smartphone addiction are below the average.

The t-test was conducted to determine whether university students' levels of smartphone addiction differed significantly by gender, and findings are given in Table 6.

Table 6. T-test results regarding smartphone addiction levels of university students by gender variable

Gender	n	M	Sd	df	t	p
Female	374	28.42	11.00	494	1.57	.117
Male	122	26.62	10.81			

When Table 6 is examined, it is seen that the mean of smartphone addiction of female university students is 28.42 and that of male university students is 26.62. It was determined that the level of smartphone addiction of university students did not show any significant difference according to gender [$t(494) = 1.57, p > 0.05$].

Relationship between University Students' Social Support Perceptions and Smartphone Addiction

The Pearson Moments Multiplication Correlation coefficients were calculated to determine whether there was a relationship between perceived social support and smartphone addiction of university students. The findings are presented in Table 7.

Table 7. Pearson correlation coefficient significance test results regarding university students' social support perceptions and their smartphone addiction

	Smartphone Addiction Level
Social Support Perception Level	-.136

$p = .002$

When Table 7 was examined, it was seen that there was a statistically low, negative and significant relationship between university students' social support perception scores and smartphone addiction scores ($r = -.136$) ($p < 0.01$).

Discussion

In this study, it is aimed to investigate the relationship between university students' social support perceptions and smartphone addiction. Students of Inonu University are the population of the research and 496 senior students from these students constitute the sample of the research. The conclusions reached based on the research findings are as follows:

It is seen that the scores of university students' social support perception level is higher than average. Along with adolescence, the most important social support resources for young people are shifting from family to friends (La Greca and Harrison, 2005). The fact that the college years correspond to the period when the young people have a lot of friendship with both of the same kind and the opposite sex is transforming the university environment into a good social sharing environment at the same time.

In this period, some young people may have come from a sheltered family system to another city, school or neighbourhood, and may feel uncomfortable about social support. In this context, the solution and prevention of many problems, the strengthening of the social support resources and the increase of the level of social support are very important. For these reasons, social support for university students in late adolescence is considered to be extremely important (Arıcıoğlu, 2008). In addition, the social support provided by the relations established in a social environment and by the individuals in this period, can have positive effects on both physical and psychological health (Bayraktar, 2011).

It was determined that the average of female university students' perceptions of social support was higher than that of male university students. It is seen that gender has a statistically significant difference in the level of perceived social support of university students. Social support scores of female university students were higher than male students scores in similar researches conducted in this subject (Başer, 2006; Çeçen, 2008; Uz Baş and Kabasakal, 2013; Güngör, 1996; Dikmen, Yılmaz and Yıldırım Usta, 2017). On the other hand, when the literature is examined, it is seen that the results regarding whether the perceived social support differed according to sex are different from each other. There is also a study (Çeçen, 2008) that shows that the levels of support that female and male perceive from their family, friends and others do not differ. The result that female university students' perception is higher than male can be the result of different gender specific needs. This result can also be explained by the different attitudes of our society towards girls and boys. In our society, we have a more conservative attitude towards girls than boys (Arıcıoğlu, 2008).

It appears that university students are below average (or near average) scores on smartphone addiction. So, the result is that university students do not feel themselves addicted to smartphones. Although university students do not see themselves as dependent on this issue, they express that they are fond of using smartphones.

Similarly, in the studies carried out by Çakır and Oğuz (2017) and Çalışkan, Yalçın, Aydın and Ayık (2017), it is seen that the addiction level of the students to smartphone is close to the average score. When the scale scores for determining addiction are taken into consideration, these results close to the average can be evaluated as expected results. This point shows that university students use the smartphone extensively, but their average is not at the limit to be defined as addiction.

It has been found that there is no significant difference between the average of smartphone addiction levels of female university students and male university students according to gender. Based on this result, it was seen that the gender variable did not cause a statistically significant difference in university students'

smartphone addiction levels. It seems that, in the field, there are different results from similar researches. It has been determined that gender does not cause a statistically significant difference in smart phone addiction in the studies conducted by Çalışkan, Yalçın, Aydın and Ayık (2017), Çetinkaya Bozkurt and Minaz (2017) and Kuyucu (2017). On the other hand, Aktaş and Yılmaz (2017), Aydoğdu Karaaslan and Budak (2012), Çakır and Oğuz (2017), Deursen, Bolle, Hegner and Kommers (2015), Jiang and Zhao (2016) and Lin and Chiang (2017) have shown on their studies that women's smartphone addiction levels are statistically significantly higher than males. While Carbonell's study with 1879 students in 2012 revealed no significant gender differences in internet addiction, it was stated that the use of internet in mobile phones is more common in females (Aslan and Yazıcı, 2016). In another study conducted with university students (Bal, 2013), it was found that females had higher averages than males in terms of daily mobile phone usage times, sms receiving and sending rates, audio-video photo sending, music listening and alarm usage. The use of smartphones today is becoming increasingly common. According to Lign (2004), regardless of being female or male, the mobile phone provides an independent communication network for young people, and young people reaching all kinds of information through mobile phones can also share many intimate knowledge through this tool (Bal, 2013, p. 87). Today, the use of smartphones has become one of the priority daily events for everyone, regardless of gender.

It was found that there was a statistically low, negative and significant relationship between the smartphone addiction level and social support perception level of university students. There are similar studies in the literature that support the low level of relationship between internet addiction and social support. According to this, the increase in psychological well-being and social support decreases the rates of excessive internet use and internet addiction (Uz Baş, Öz Soysal ve Aysan, 2016). Similarly, this finding is parallel with research findings that perceived social support is a significant predictor of problematic internet use in university students (Oktan, 2015). Yılmaz, Yılmaz and Karaca (2008) found that the relationship between loneliness level and social support resources was negative, therefore, the level of social support perceived by the students was high and the level of loneliness was low. Doğan (2004) determined that as the perceived social support of university students increases, their well-being also increases. Yıldırım (2006) examined whether loneliness, test anxiety, family, friends and teacher support variables predicted academic success in his study. The results of the study showed that the variables of teacher support, family support, loneliness and test anxiety predicted academic achievement at a meaningful level; and that friend support did not.

It is seen that social support strengthens the psychological endurance, that is to say the support that the individual gains within or outside the family, gives the feeling that he/she is not alone towards stressful situations and possible negative problems (Terzi, 2008). It was found that the social support perceived by the education faculty students using social networks to communicate with their friends were higher than the ones who did not use these networks to communicate with their friends (Şahin-Baltacı, İşleyen and Özdemir, 2012). Students who come to the university start the process of creating a new social environment with their departure from their families; so, friends become an important source of social support for young people. Findings in the research indicate that students having romantic relationships have higher perceptions of social support than those without romantic involvement. According to the results obtained from the research, as communicating face to face with a friend can cause concern for interaction, it can be said that students prefer to use social networks to talk to their friends and they also get social support by communicating via social networks even if it is not a face to face communication. These two findings suggest that social networks are a source of social support besides protecting students from the fear of interaction (Sahin-Baltacı, İşleyen and Özdemir, 2012). University students need help with many issues such as separation from the family, adapting to a new environment, economic difficulties, and difficulties with romantic relationships. The support that the students cannot find in their real life and the loneliness they are experiencing in the virtual environment can bring with it the pathological use of the internet (Uz Baş, Sosyal and Aysan, 2016). It can be said that the

environment created by social networks is important for young people, and friends increase perceived social support.

As a result, prospective teachers at the university education need to be supported in the university environment in terms of smartphone addiction and social support, like university students in other faculties. Especially in the recent years, the usage of smartphones has increased, and as a result social media sharing and friendship relationships, which become indispensable for everyday life, are moving and continuing to virtual partnership. Social support has the effect of helping interpersonal relationships.

For students with low social support, psycho-educational services such as social skills development, communication skills can be offered by university psychological counselling and guidance services. Emphasis can be placed on the importance of social support that contributes to reducing the loneliness of the learners, their psychological stability in course and extracurricular work. As a result of the fact that the level of mobile phone addiction is high for the student with low social support, it can be thought that the studies that increase the social support will contribute to decrease the mobile phone addiction.

REFERENCES

- Aktaş, H., & Yılmaz, N. (2017). Üniversite gençlerinin yalnızlık ve utangaçlık unsurları açısından akıllı telefon bağımlılığı [Smartphone addiction in terms of the elements of loneliness and shyness of university youth], *International Journal of Social Sciences and Education Research*, 3(1), 85-100.
- Arıçoğlu, A. (2008) *Hacettepe üniversitesi eğitim fakültesi öğrencilerinin algıladıkları sosyal destek [Perceived social support levels of university students Hacettepe University Education Faculty]* (Unpublished master's thesis). Ankara Üniversitesi Sağlık Bilimleri Enstitüsü, Ankara.
- Aslan, E., & Yazıcı, A. (2016) Üniversite öğrencilerinde internet bağımlılığı ve ilişkili sosyodemografik faktörler [Internet addiction among university students and related sociodemographic factors] *Klinik Psikiyatri*, 19, 109-117.
- Ay, S. (2013). *İletişim araçları kullanımının yarattığı bağımlılığın sosyal izolasyon üzerindeki etkisi: Cep Telefonları üzerine bir araştırma [A study on effect of the use of communication tools addiction on social isolation and mobile phone users]* (Unpublished administrative dissertation). Bilgi Teknolojileri ve İletişim Kurumu, İzmir.
- Aydoğdu Karaaslan, İ., & Budak, L. (2012). Üniversite öğrencilerinin cep telefonu özelliklerini kullanımlarının ve gündelik iletişimlerine etkisinin araştırılması [Research on the use of mobile phone features by university students and its impact on their communication practices in everyday life]. *Journal of Yasar University*, 26(7) 4548 – 4525.
- Ayhan, B., & Çavuş, S. (2014). İzleyici araştırmalarında değişim: Kullanımlar ve doyumlardan bağımlılığa [Change in audience studies: From uses and gratifications to addiction], *Selçuk İletişim*, 8(2) 32-60.
- Bal, E. (2013). *Teknoloji çağında cep telefonu kullanım alışkanlıkları ve motivasyonlar: Selçuk Üniversitesi öğrencileri üzerine bir inceleme [Cell phone usage habits and motivations in technology age: A study on Selçuk University students]* (Unpublished doctoral dissertation). Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.
- Banaz, M. (1992). *Lise öğrencilerinde sosyal destek kaynakları ve stres ile ruh sağlığı arasındaki ilişki* (Unpublished master's thesis). Ege Üniversitesi Sosyal Bilimler Enstitüsü, İzmir.
- Başer, Z. (2006). *Aileden algılanan sosyal destek ile kendini kabul düzeyi arasındaki ilişkinin incelenmesi: Üniversite öğrencileri üzerine bir araştırma, [The analyze of the relation between the perceived social support taken from the family and the level of self-acceptance: A research on the university students]* (Unpublished master's thesis). Atatürk Üniversitesi Sosyal Bilimler Enstitüsü, Erzurum.
- Bayram, D. (1999). *Bir grup gençte ruhsal belirti ile sosyal destek ilişkisi, [Relationship of psychological symptoms and social support among a group of adolescents]* (Unpublished doctoral dissertation). Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü, İzmir.
- Bayraktar, Ö. (2011) *Üniversite öğrencilerinin algılanan sosyal destek düzeyleri ile duygusal zekaları arasındaki ilişkinin incelenmesi. [Analysis of university students' emotional intelligence's relation with social support level]* (Unpublished master's thesis). Selçuk üniversitesi Eğitim Bilimleri Enstitüsü, Konya.
- Bulduklu, Y., & Özer, N. P. (2016). Gençlerin akıllı telefon kullanım motivasyonları [Young people's smart phone use motivations], *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 5(8), 2963-2986.
- Caplan, S. E. (2005). A social skill account of problematic internet use. *Journal of Communication*, 55, 721-736.
- Chiu, S. (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. <http://dx.doi.org/10.1016/j.chb.2014.01.024>.
- Cüceloğlu, D. (1992). *İnsan ve Davranışı*. İstanbul: Remzi Kitabevi.

- Cura, Ü., & Işık, A. N. (2016) Impact of acculturative stress and social support on academic adjustment of international students, *Education and Science*, 41(184), 333-347.
- Çakır, F., & Demir, N. (2014). Üniversite öğrencilerinin akıllı telefon satın alma tercihlerini belirlemeye yönelik bir araştırma [A study on determining preferences of university students' purchasing smartphone], *Dokuz Eylül Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 29(1), 213-243.
- Çakır, Ö., & Oğuz, E. (2017). Lise öğrencilerinin yalnızlık düzeyleri ile akıllı telefon bağımlılığı arasındaki ilişki [The correlation between high school students' loneliness levels and smart phone addiction], *Mersin Üniversitesi Eğitim Fakültesi Dergisi - Mersin University Journal of the Faculty of Education*, 13(1), 418-429. DOI: <http://dx.doi.org/10.17860/mersinefd.290711>.
- Çalışkan, N., Yalçın, O., Aydın, M., & Ayık, A. (2017). BÖTE öğretmen adaylarının akıllı telefon bağımlılık düzeylerini belirlemeye yönelik bir çalışma [A study on defining smart phone addiction level of prospective teachers of CEIT], *International Journal of Eurasia Social Sciences*, 8(26), 111-125.
- Çeçen, R. (2008). Öğrencilerinin cinsiyetlerine ve ana baba tutum algılarına göre yalnızlık ve algılanan sosyal destek düzeyleri [University students' loneliness and perceived social support levels according to gender and perceived parents attitudes]. *Türk Eğitim Bilimleri Dergisi*, 6(3), 415-431.
- Çetinkaya Bozkurt, Ö., & Minaz, A. (2017, 11-13 Mayıs). Üniversite öğrencilerinin akıllı telefon bağımlılık düzeylerinin ve kullanım amaçlarının farklı değişkenler açısından incelenmesi [Investigation of university students smartphone addiction levels and usage purposes in terms of different variables]. *Proceedings of the 4. Ulusal Meslek Yüksekokulları Sosyal ve Teknik Bilimler Kongresi* (596-610), Mehmet Akif Ersoy Üniversitesi, Burdur.
- 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. <http://dx.doi.org/10.1016/j.chb.2014.12.039>.
- Dikmen, Y., Yılmaz, D., & Yıldırım Usta, Y. (2017) Hemşirelik öğrencilerinde algılanan sosyal destek ile boyun eğici davranışlar arasındaki ilişkinin incelenmesi [Examining the association between submissive behaviours and perceived social support in nursing students]. *European Journal of Therapeutics*, 23(1), 12-18.
- Dil, S., & Aykanat Girgin, B. (2016) Hemşirelik öğrencilerinin öfke, umutsuzluk, stresle baş etme düzeyleri ile sosyal destek algıları arasındaki ilişkinin incelenmesi. [An examination of the relationship between anger, stress, hopelessness and perceived social support in nursing students]. *Psikiyatri Hemşireliği Dergisi*, 7(3), 121-128.
- Doğan, U., & İlçin Tosun, N. (2016). Lise öğrencilerinde problemlili akıllı telefon kullanımının sosyal kaygı ve sosyal ağların kullanımına aracılık etkisi [Mediating effect of problematic smartphone use on the relationship between social anxiety and social network usage of high school students], *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 8(22), 99-128.
- Doğan, T. (2004). *Üniversite öğrencilerinin iyilik halinin incelenmesi. [Investigation of the wellness state of college students]* (Unpublished doctoral dissertation). Hacettepe Üniversitesi, Sosyal Bilimler Enstitüsü, Ankara.
- Eker, D., Arkar, H., & Yıldız, H. (2001). Çok boyutlu algılanan sosyal destek ölçeğinin gözden geçirilmiş formunun faktör yapısı, geçerlik ve güvenilirliği, [Factorial structure, validity, and reliability of revised form of the multidimensional scale of perceived social support], *Türk Psikiyatri Dergisi*, 12(1), 17-25.

- Ell, K. (1996). Social networks, social support and coping with serious illness: The family connection. *Social science & medicine*, 42(2), 173-183.
- Emanuel, R., Bell, R., Cotton, C., Craig, J., Drummond, D., Gibson, S., ... Williams, A. (2015). The truth about smartphone addiction. *College Student Journal*, 49(2), 291-299.
- Erdem, H., Kalkın, G., Türen, U., & Deniz, M. (2016). Üniversite öğrencilerinde mobil telefon yoksunluğu korkusunun (nomofobi) akademik başarıya etkisi [The effects of no mobile phone phobia (nomofobi) on academic performance among undergraduate students], *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 21(3), 923-936.
- Erdem, H., Türen, U., & Kalkın, G. (2017). Mobil telefon yoksunluğu korkusu (nomofobi) yayılımı: Türkiye'den üniversite öğrencileri ve kamu çalışanları örnekleme [No mobile phone phobia (nomophobia) prevalence: Samples of undergraduate students and public employees from Turkey], *Bilişim Teknolojileri Dergisi*, 10(1), 1-12. DOI: 10.17671/btd.30223.
- Gezgin, D. M. (2017). Exploring the influence of the patterns of mobile internet use on university students' nomophobia levels, *European Journal of Education Studies*, 3(6), 29-52. doi: 10.5281/zenodo.572344.
- Görgü, E. (2005). 3-7 yaş arası otistik çocuğa sahip olan annelerin algıladıkları sosyal destek düzeyleri ile depresyon düzeyleri arasındaki ilişki. (Unpublished masters' thesis). Marmara Üniversitesi, İstanbul.
- Güçlü, S., Değirmen, N., & Uncu, B. (2016). Yetişkinlerde sosyal destek anksiyete ve benlik algısı arasındaki ilişki, [The relationship between social support, anxiety and self-perception in adults], *Journal of Current Researches on Health Sector*, 6(1), 13-22.
- Güngör, D. (1996). *Turkish university students relationships with their friends and families: Social support, satisfaction and loneliness*, [Üniversite öğrencilerinin arkadaş ve aileleri ile ilişkisi, sosyal destek, doyum ve yalnızlık] (Unpublished master's thesis). ODTÜ, Ankara.
- Jiang, Z., & Zhao, X. (2016). Self-control and problematic mobile phone use in Chinese college students: the mediating role of mobile phone use patterns, *Jiang and Zhao BMC Psychiatry*, 16, 1-8. DOI 10.1186/s12888-016-1131-z.
- Kahyaoğlu Süt, H., Kurt S., Uzal, Ö., & Özdilek S. (2016). Sağlık bilimleri fakültesi öğrencilerinin akıllı telefon bağımlılık düzeylerinin sosyal ve eğitim hayatına etkisi [Effects of smartphone addiction level on social and educational life in health sciences students]. *Avrasya Aile Hekimliği Dergisi*, 5(1), 13-19.
- Kalba, K. (2008). The adoption of mobile phones in emerging markets: Global diffusion and the rural challenge. *International Journal of Communication*, 2, 631-661.
- Karaman, M. K., & Kurtoğlu, M. (2009) Öğretmen adaylarının internet bağımlılığı hakkındaki görüşleri. *Proceedings of the XI. Akademik Bilişim Konferansı*, Harran Üniversitesi, Şanlıurfa, 641-650.
- Katz, J. E., & Sugiyama, S. (2006). Mobile phones as fashion statements: Evidence from student surveys in the US and Japan, *New Media & Society*, 8(2), 321-337.
- Kozaklı H. (2006) Üniversite öğrencilerinde yalnızlık ve sosyal destek düzeyleri arasındaki ilişkilerin karşılaştırılması. (Unpublished masters' thesis). Mersin Üniversitesi, Sosyal Bilimler Enstitüsü, Psikoloji Anabilim Dalı, Mersin.
- Kuang-Tsan, C., & Fu-Yuan, H. (2017). Study on relationship among university students' life stress, smart mobile phone addiction, and life satisfaction, *J Adult Dev*, 24, 109-118. DOI 10.1007/s10804-016-9250-9.

- Kuyucu, M. (2017). Gençlerde akıllı telefon kullanımı ve akıllı telefon bağımlılığı sorunsalı: "Akıllı telefon(kolik)" üniversite gençliği [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.
- 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, e83558. DOI:10.1371/journal.pone.0083558.
- La Greca, M. A., & Harrison, H. M. (2005). Adolescent peer relations, friendships, and Romantic relationships: Do they predict social anxiety and depression? *Journal of Clinical Child Adolescent Psychology*, 34(1), 49-61.
- Lin, T. T. C., & Chiang, Y. (2017). Investigating predictors of smartphone dependency symptoms and effects on academic performance, improper phone use and perceived sociability. *International Journal of Mobile Communications*, 1-27. DOI: 10.1504/IJMC.2017.10005647.
- Malkoç, A., & Yalçın, İ. (2015). Relationship among resilience, social support, coping and psychological well-being among university students. *Turkish Psychological Counseling and Guidance Journal*, 5(43), 35-43.
- Meehan, M. P., Durlak, J. A., & Braynt, F. B. (1993). The relationship of social support to perceived control and subjective mental health in adolescents. *Journal of Community Psychology*, 21, 49-55.
- Noyan, C. O., Enez Darçın, A., Nurmedov, S., Yılmaz, O., & Dilbaz, N. (2015). Akıllı telefon bağımlılığı ölçeğinin kısa formunun üniversite öğrencilerinde Türkçe geçerlilik ve güvenilirlik çalışması [Validity and reliability of the Turkish version of the Smartphone Addiction Scale-Short Version among university students], *Anadolu Psikiyatri Dergisi*, 16(Özel sayı.1), 73-81.
- Oktan, V. (2015). Üniversite öğrencilerinde problemlerli internet kullanımı, yalnızlık ve algılanan sosyal destek. [Problematic internet use, loneliness and perceived social support among university students], *Kastamonu Eğitim Dergisi*, 23(1), 281-292.
- Özbek, V., Alınacı, Ü., Koç, F., Akkılıç, M. E., & Kaş, E. (2014). Kişilik özelliklerinin teknoloji kabulü üzerindeki doğrudan ve dolaylı etkileri: Akıllı telefon teknolojileri üzerine bir araştırma [Direct and indirect effects of personality on technology acceptance: A study on smart phone technologies], *International Review of Economics and Management*, 2(1), 36-57.
- Özcan, N. K., & Buzlu, S. (2005). Problemlerli internet kullanımını belirlemede yardımcı bir araç: İnternet bilişsel durum ölçeğinin üniversite öğrencilerinde geçerlik ve güvenilirliği [An assistive tool in determining problematic internet use: validity and reliability of the "online cognition scale" in a sample of university students]. *Bağımlılık Dergisi*, 6(1), 19-26.
- Özcan, Y. Z., & Koçak, A. (2003). Research note: A need or a status symbol? Use of cellular telephones in Turkey, *European Journal of Communication*, 18(2), 241-254.
- Özkahraman, Ş., Demir, Y., & Gökdoğan, F. (2010). Üniversite öğrencilerinde algılanan sosyal destek düzeyi ve ilişkili faktörler [Perceived social support level and related factors in university students], *Sürekli Tıp Eğitimi Dergisi*, 19(1), 6-11.
- Park, C. J., Hyun, J. S., Kim, J. Y., & Lee, K. E. (2014, 22-24 October). Impact of personal time-related factors on smart phone addiction of female high school students, *Proceedings of the World Congress on Engineering and Computer Science*, 1, 1-5, San Francisco, USA.
- Park, N., & Lee, H. (2014). Gender difference in social networking on smartphones: A case study of Korean College student smartphone users, *International Telecommunications Policy Review*, 21(2), 1-18.

- Park, C., & Park, Y. R. (2014). The conceptual model on smart phone addiction among early childhood, *International Journal of Social Science and Humanity*, 4(2), 147-150, DOI: 10.7763/IJSSH.2014.V4.336.
- Roberts, J. A., Pullig, C., & Manolis, C. (2015). I need my smartphone: A hierarchical model of personality and cell-phone addiction, *Personality and Individual Differences* 79, 13-19. <http://dx.doi.org/10.1016/j.paid.2015.01.049>.
- Samaha, M., & Hawi, N. S. (2015). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life, *Computers in Human Behavior*, 57, 321-325. <http://dx.doi.org/10.1016/j.chb.2015.12.045>.
- Şahin Baltacı, H., İşleyen, F., & Özdemir, S. (2012) Eğitim fakültesi öğrencilerinin romantik ilişki durumları ve sosyal ağ kullanımlarına göre etkileşim kaygısı ve sosyal destek algılarının incelenmesi [The investigation of interaction anxiety and social support perceptions of the faculty of education students according to the romantic relationship status and social network use], *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 8(2), 25-36.
- Tao, S., Wu, X., Zhang, S., Tong, S., Hao, J., & Tao, F. (2017). Association of alcohol use with problematic mobile phone use and depressive symptoms among college students in Anhui, China, *J Public Health*, 25, 103-112. DOI 10.1007/s10389-016-0766-z.
- Terzi, Ş. (2008). Üniversite öğrencilerinin psikolojik dayanıklılıkları ve algıladıkları sosyal destek arasındaki ilişki, [The relationship between psychological hardiness and perceived social support of university students], *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 3(29), 1-11.
- Uz Baş A., & Kabasakal, Z. (2013) Öğretmen adaylarında umutsuzluk ve algılanan sosyal destek. [Despair across teacher candidates and perceived social support], *Eğitim ve Öğretim Araştırmaları Dergisi [Journal of Research in Education and Teaching]*, 2(1), 19-26.
- Uz Baş, A., Öz Soysal, F. S., & Aysan, F. (2016) Üniversite öğrencilerinde problemlerli internet kullanımının psikolojik iyi-oluş ve sosyal destek ile ilişkisi [Relationship of problematic internet usage to psychological well-being and social support in college students], *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 5(4), 1035-1046.
- Yang, H. C., & Kim, Y. E. (2015). Intermittent addiction and double sidedness of thought suppression: Effects of student smart phone behavior, *Journal of Distribution Science*, 13(9), 13-18. <http://dx.doi.org/10.15722/jds.13.9.201509.13>.
- Yıldırım, İ. (1997). Algılanan sosyal destek ölçeğinin geliştirilmesi güvenilirliği ve geçerliği. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi* 13, 81-87.
- Yıldırım, İ. (1998). Akademik başarı düzeyleri farklı olan lise öğrencilerinin bazı değişkenlere göre sosyal destek düzeyleri. [Social support levels of high school students who had lower or higher academic performance, according to some variables], *Türk Psikolojik Danışma ve Rehberlik Dergisi*, 2(10), 33-45.
- Yıldırım, İ. (2004). Algılanan sosyal destek ölçeği'nin revizyonu. [Revision of perceived social support scale], *Eğitim Araştırmaları-Eurasian Journal of Educational Research*, 17, 221-236.
- Yıldırım, İ. (2006). Akademik başarının yordayıcısı olarak gündelik sıkıntılar ve sosyal destek [Daily hassles and social support as predictors of academic achievement], *H.Ü. Eğitim Fakültesi Dergisi (H.U. Journal of Education)*, 30, 258-267.
- Yılmaz, G., Şar, A. H., & Civan, S. (2015). Ergenlerde mobil telefon bağımlılığı ile sosyal kaygı arasındaki ilişkinin incelenmesi [Investigation of adolescent mobile phone addiction by social anxiety effect of some variable]. *Online Journal of Technology Addiction & Cyberbullying*, 2(2), 20-37.

- Yılmaz, E., Yılmaz, E., & Karaca, F. (2008). Üniserte öđrencilerinin sosyal destek ve yalnızlık düzeylerinin incelenmesi. [Examining the level of social support and loneliness of university students], *Genel Tıp Dergisi*, 18(2), 71-79.
- Zimet, G .D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52, 30-41.
- Zimet, G. D., Powell, S. S., Farley, G. K., Werkman, S., & Berkoff, K. A. (1990). Psychometric characteristics of the Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, 55, 610-17.