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Original Article

The Relationship between the Problematic Mobile Phone Use and Life Satisfaction, Loneliness, and Academic Performance in Nursing Students

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Abstract

Background: Nowadays, mobile phones have become an important part of the daily lives of individuals; and, considering the mobile applications developing with each passing beyond communication, they affect beliefs, attitudes, behaviors, and behavioral outcomes of individuals.
Objectives: This study aims to identify the relationship between the problematic mobile phone use and life satisfaction, loneliness, and academic performance in nurse candidates.
Methods: The study was conducted at the Faculty of Health Sciences of Atatürk University in Erzurum/Turkey. The sample consist of 353 nurse students, 274 female and 79 male. Problematic Mobile Phone Use Scale, the Life Satisfaction Scale and the UCLA Loneliness Scale was used for data collection in the study.
Results: Students' mean score in the problematic mobile phone use scale was 55.91±18.66, the mean life satisfaction scale score was 22.05±6.00, and the mean score in the loneliness scale was 39.11±7.00. A negative relationship was found between the problematic mobile phone use and life satisfaction ($r= -0.156$, $p<0.01$), whereas the relationship with the loneliness was positive ($r=0.256$, $p<0.01$). Moreover, a negative significant correlation was found between the mean score taken in the problematic mobile phone use scale and Grade Point Average (GPA) ($r= -0.121$, $p<0.05$).
Conclusion: As a result of this study, it was found that life satisfaction decreases, loneliness increases, and academic performance decreases with the increasing problematic mobile phone use in nurse candidates.

Keywords: Problematic mobile phone use, life satisfaction, loneliness, academic performance

Introduction

Nowadays, mobile phones have become an important part of the daily lives of individuals, and are regarded as an essential tool for calling family members and friends, sending messages, connecting to the Internet, playing games, listening to music, and shopping (Leena, Tomi and Arja, 2005).

Mobile phone use is increasing throughout the world, and becoming widespread especially among young people in almost every country. According to the 2007 data of the Turkish Statistical Institute, the household mobile phone ownership was about 72.62% in Turkey (Turkish Statistical Institute, 2015). Studies indicate that the percentage of mobile phone ownership reaches up to 76% in adolescents and young adults, and 40% of them was inferred to have a second mobile phone (mobilike, 2016).Young people using mobile

phones excessively constitute a risk group in terms of addiction. A survey on this issue reported that young people are overly dependent to their mobile phones, and show some signs of addiction (Walsh, White and Young, 2008).

Hence, young people can't control their addiction to mobile phones in a classroom setting, and use their mobile phones or their minds are preoccupied with mobiles during the course. It was revealed in another study that college students often use their mobile phones to send and receive short messages, and spend more than 5 hours on their mobile phones daily (Arslan and Ünal, 2013). The young people who can't limit their mobile phone use may experience serious academic, financial, behavioral, and psychological problems.

The life satisfaction is defined as a cognitive assessment, feeling or attitude of an individual about life (Han and Kim, 2004). Research on young people have shown that variables such as parental attitude (Young and Miller, 1995) spirituality/religiosity (Vitale, 2001), socio-economic level (Shek, 1999) and academic performance (Chow, 2005) are associated with life satisfaction. However, there are very few researches that investigate the relationship between mobile phone use and life satisfaction (Lepp, Barkley and Karpinski, 2014).

Loneliness is a serious and major developmental problem of adolescence. Individuals seek various ways to cope with this problem. One way to cope with it is the problematic mobile phone use. Problematic mobile phone use, even among family members, negatively affects face-to-face interpersonal contact resulting in anti-social feelings (Rosman, 2006). A study on this subject reported that the percentage of daily mobile phone use was higher in adolescents feeling lonely, indicating an addiction to mobile phones (Şar, 2013). At the same time, mobile phone addiction was found to be associated with the problems of low self-confidence and social skills (Kring et al., 2007) as well as low self-esteem (Phillips, Ogeil and Blaszczynski, 2011).

Academic performance is one of the important areas effective on life satisfaction of college students (Pavot and Diener, 2008; Schimmack, Diener and Oishi, 2002). In the literature, there are limited number of research investigating problematic mobile phone use and academic performance, and the methods of these studies differ significantly (Jacobsen and Forste, 2011; Hong, Chiu and Hong, 2012; Sanchez-Martínez and Otero, 2009).

Mental and physical well-being of students in the department of health is particularly important for the community. Although an improvement in face-to-face communication skills of nurses has a positive contribution to their professional lives, their extensive use of mobile phones can lead to some problems.

Moreover, problematic mobile phone use can distract nursing students in the course, disrupting their lessons. This study was conducted to identify the relationship between the problematic mobile phone use and life satisfaction, loneliness, and academic performance in nurse students.

Methods

Design and sample

The study was designed as a descriptive and cross-sectional. The study population consists of students studying at the Department of Nursing, Faculty of Health Sciences, Atatürk University in the 2014-2015 academic year at fall semester.

The sample group (n=353) consistef of freshman (n=110), sophomore (n=104), junior (n=77) and senior (n=62) students, who agreed to participate in the research voluntarily and they were studying at the Atatürk University Department of Nursing.

Data collection

The questionnaires used for this study were distributed to nursing students, and collected by the researchers. Students answered the questions easily.

A four-part survey was used for data collection. The questionnaires included: (1) Personal Information Form, (2) Problematic Mobile Phone Use Scale (PMPUS), (3) The Satisfaction with Life Scale (SWLS) and (4) University of California Los Angeles Loneliness Scale (UCLA).

Personal Information Form

It is designed to describe students' personal information, such as age, gender, grade level of the students, hours per day with their mobile phones, mobile phone purpose, GPA.

Problematic Mobile Phone Use Scale (PMPUS)

PMPUS developed by Bianchi and Phillips (2005) was adapted to Turkish by Sar and Isıklar (2012). The scores that may be gotten over a 5-point likert type scale with 27 questions vary between 27 and 135. As the scores that are gotten over the scale get higher, the mobile phone addiction increases.

For the Turkish form of the scale, Cronbach Alpha coefficient for internal consistency was calculated as 0.94 and reliability co-efficient as 0.88. As a result of these values obtained, the Turkish form of the scale was accepted as reliable and valid. In this study, Cronbach alpha parameter for PMPUS was determined as 0.92

The Satisfaction with Life Scale (SWLS)

The SWLS developed by Diener, et al. (1985) and adapted to Turkish by Köker (1991) was used. The SWLS measures global life satisfaction and consists of 5 items of which the values are evaluated according to 7 scores (1= *strongly disagree*, 7= *strongly agree*).

The range of possible SWLS scores is 5–35, with higher totals reflecting greater satisfaction with life. In this study, Cronbach alpha parameter for SWLS was determined as 0.78.

University of California Los Angeles Loneliness Scale (UCLA)

The UCLA scale that was adapted to Turkish participants by Demir (1989) was used for measuring the loneliness levels of the students. The UCLA is a 20-item Likert type scale measuring the general loneliness levels of participants.

The range of ZCBI scores is 20–80, with higher totals reflecting greater loneliness. In this study, Cronbach alpha parameter for UCLA was determined as 0.73.

Ethical considerations

The study was approved by the ethics committee, permission were given from the institution and verbal consent of students was obtained.

Statistical analysis

Coding and statistical analyses of data were done by using the SPSS 11.5 package program. The data were assessed through percentage distribution, t test, Kruskal Wallis variance analysis and Pearson's correlation analysis.

P values less than 0.05 was considered as significant.

Result

Students' mean score in the problematic mobile phone use scale was found to be 55.91±18.66, the mean life satisfaction scale score was 22.05±6.00, and the mean score in the loneliness scale was 39.11±7.00 (Table 1).

The average age of the students in the sample group was 20.65±1.65, their GPA was 2.88±0.58, and the average time spent with a mobile phone was 5.81±2.65 hours. Of the students, 77.6% was female, 31.2% was freshman, and 71.4% was found to live with their friends.

There was no statistically significant difference between the mean problematic mobile phone use scores in terms of students' gender, grade, and the people lived with ($p>0.05$) (Table 2).

Considering the purposes of nursing students' use of mobile phones, it was determined that 80.2% of the students was using their phones for talking, 63.2% for sending messages, 51.0% for Internet, 43.6% for taking photos and 26.6% for gaming (Table 3).

As a result of this study, a significant negative relationship was found between the nursing students' mean score in the problematic mobile phone use and the mean life satisfaction score ($r= -0.156$, $p<0.01$), and the relationship with the mean UCLA loneliness score was positive ($r=0.256$, $p<0.01$).

Furthermore, there was a significant negative relationship between the mean problematic mobile phone use and GPA ($r= -0.121$, $p<0.05$), whereas the relationship between the mean problematic mobile phone use and the duration of mobile phone use was positive and significant ($r=0.435$, $p<0.05$).

However, there was no significant relationship between the mean problematic mobile phone use score and the average age of the students ($r= -0.020$, $p>0.05$) (Table 4).

Table 1. Nursing Students' Mean Problematic Mobile Phone Use, Loneliness and Life Satisfaction Scores (**N=353)**

	Min.	**Max.**	**X±SD**
Problematic Mobile Phone Use Scale *(PMPUS)*	27.00	126.00	55.91±18.66
Satisfaction with Life Scale *(SWLS)*	5.00	35.00	22.05±6.00
UCLA Loneliness Scale	27.00	68.00	39.11±7.00

Table 2. Distribution of Problematic Mobile Phone Use Scale *(PMPUS)* score means by nurse students' characteristics

Characteristics (N=353)	**(n)**	**%**	***PMPUS* X±SD**	**Test value**	**P**
Gender					
Female	274	77.6	55.57±18.55	t=-0.63	p=0.523
Male	79	22.4	57.10±19.11		
Year of class					
1nd year class	110	31.2	56.51±20.76		
2nd year class	104	29.4	55.01±15.40	F=0.139	p=0.937
3nd year class	77	21.8	56.42±18.85		
4nd year class	62	17.6	55.72±19.83		
Persons living together					
Family	72	20.4	56.43±1922	KW=0.474	p=0.789
Friends	252	71.4	55.39±17.96		
Lonely	29	8.2	59.20±22.03		

Table 3. Nurse Candidates' Purposes of Mobile Phone Use

Purposes of mobile phone use	*N	%
Talking	283	80.2
Sending messages	223	63.2
Internet	180	51.0
Taking photos	154	43.6
Gaming	94	26.6

*More than one answer.

Table 4. The Relationship between the Problematic Mobile Phone Use and Loneliness, Life Satisfaction and Certain Descriptive Characteristics of Nursing Students

Problematic Mobile Phone Use Scale *(PMPUS)*		
	r	**p**
Satisfaction with Life Scale *(SWLS)*	-0.156	0.003
UCLA Loneliness Scale	0.256	0.000
GPA	-0.121	0.023
Age	-0.020	0.713
The duration of mobile phone use	0.435	0.000

Discussion

This study was discussed in the light of related literature in order to identify the relationship between the problematic mobile phone use and life satisfaction, loneliness, and academic performance in nurse candidates.

According to our study results, the average time spent by nurse candidates with mobile phones was 5.81±2.65 hours. Moreover, it was found that students mostly use their mobile phones for talking, texting, internet, taking photos, and gaming respectively. In a similar manner, the study by Arslan and Ünal (2013) revealed that students use their mobile phones for talking, messaging, music, games, photos/camera, and internet mostly, spending a lot of time using mobile phones.

In this study, no relationship was found between problematic mobile phone use and nurse candidates' age and gender. When the relevant literature is studied, Bianchi and Phillips (2005) concluded that teenagers spend more time for mobile phone use than adults and have higher level of problematic phone use, and there is no significant difference among teenagers in terms of sex, while Martinotti et al. (2011) concluded in their studies that the level of problematic mobile phone use among female and male teenagers is high and 6.3% of these teenagers display other addiction behaviors.

According to the result of this study, it was found that the life satisfaction decreases, loneliness increases, and academic performance decreases with the increasing problematic mobile phone use in nurse candidates. Similarly, previous studies reported that excessive internet use caused mental (Eijnden et al., 2008) and physical (Beranuy et al., 2009) disorders, reducing life satisfaction as a result. A study conducted with college students by Lepp et al. (2014) also found a negative relationship between the frequency of mobile phone use and life satisfaction.

In the literature, different study results are found regarding loneliness and problematic mobile phone use. Yen et al. (2009) found out that the problematic mobile phone use is very common among teenagers and that the teenagers experiencing this problem spend more time and money for phone and feel more depressed. Jin and Park (2012) found that more face-to-face interactions were associated with lower levels of loneliness; however, more cell phone calling was associated with greater loneliness. According to Sar's (2013) study, the problematic phone use increases as talking time increases, however increase of talking time decreases loneliness level in teenagers. In another study, for example, Reid and Reid (2014) reported that individuals talking and texting with mobile phones more frequently experienced lower levels of anxiety and loneliness. The mobile phone addiction leads to anti-social behavior and reduces life satisfaction since it affects face to face interpersonal relationships negatively (Rosman, 2006).

Similar to our study results, in a study by Jacobsen and Forste (2011) conducted in the US, a negative relationship was found between the use of electronic media, such as mobile phones, and academic performance. Furthermore, Hong, Chiu, and Hong (2012) found a correlation between Taiwanese college female students' daily mobile phone use and self-reports on academic difficulty measurement. Sanchez-Martinez and Otero (2009) found a significant relationship between intensive mobile phone use and poor school success in their study conducted with a sample group consisted of Spanish high school students.

Conclusion

This study, it was found that the life satisfaction decreases, loneliness increases, and academic performance decreases with the increasing problematic mobile phone use in nurse candidates. Today, while mobile phone usage is steadily increasing, we recommend preventive interventions aimed at protecting young people, particularly those who are open to experience, from mobile phone addiction.

Reference

Arslan A, Ünal AT. (2013). Examination of cell phone usage habits and purposes of education faculty students. International Journal of Human Sciences (10)1:182-201.

Beranuy M, Oberst U, Carbonell X, Chamarro A. (2009). Problematic internet and mobile phone use and clinical symptoms in college students: the role of emotional intelligence. Comput Human Behav 25: 1182-1187.

Bianchi A, Phillips JG. (2005). Psychological predictors of problem mobile phone use. Cyber psychology & Behavior 8 (1); 39-51.

Chow HPH. (2005). Life satisfaction among university students in a Canadian prairie city: A multivariate analysis. Social Indicators Research 70: 139-150.

Demir A. (1989). Validity and Reliability of the UCLA Loneliness Scale. Psychology Journal 7 (23): 14-18.

Diener E, Emmons R, Larsen R, Griffin S. (1985). The satisfaction with life scale. J Pers Assess 49: 71–75. 98.

Eijnden RJM, Meerkerk GJ, Vermulst AA, Spijkerman R, Engels CME. (2008). Online communication, compulsive internet use, and psychosocial well-being among adolescents: A longitudinal study. Dev Psychol 44: 655-665.

Han J, & Kim S. (2004). The effect of demographic variables and self esteem on the life satisfaction of the older men and women in rural area in Korean. Journal of Welfare for the Aged 26:92-118.

Hong FY, Chiu SI, Hong DHA. (2012). Model of the relationship between psychological characteristics, mobile phone addiction and use of mobile phones by Taiwanese university female students. Computers in Human Behavior 28: 2152–2159.

http://www.tuik.gov.tr/ , access date; 16.11.2015

http://www.mobilike.com/mobil-sektor/?lang=tr , access date; 15.01.2016

Jacobsen WC, Forste R. (2011). The wired generation: Academic and social outcomes of electronic media use among university students. Cyberpsychology, Behavior, and Social Networking 14(5): 275–280.

Jin B, Park N. (2012). Mobile voice communication and loneliness: Cell phone use and the social skills deficit hypothesis. New Media & Society 0 (0) 1–18.

Köker S. (1991). Comparison of Life Satisfaction Levels in Normal and Problem Students. (Thesis). Ankara: Ankara University Institute of Social Sciences.

Kring AM, Davison GC, Neale JM, Johnson SL. (2007). Abnormal psychology (ch. 8). Hoboken, NJ: John Wiley & Sons.

Leena K, Tomi L. & Arja R. (2005). Intensity of mobile phone use and health compromising behaviors-how is information and communication technology connected to health-related lifestyle in adolescence? Journal of Adolescence 28: 35–47.

Lepp A, Barkley JE, Karpinski AJ. (2014).The relationship between cell phone use, academic performance, anxiety, and satisfaction with life in college students. Computers in Human Behavior 31: 343–350.

Martinotti, et al. (2011). Problematic mobile phone use in adolescence: a cross-sectional study. Journal of Public Health 19:545–551.

Pavot W, Diener E. (2008). The Satisfaction with Life Scale and the emerging construct of life satisfaction. The Journal of Positive Psychology 3(2):137–152.

Phillips JG, Ogeil RP, Blaszczynski A. (2011). Electronic interests and behaviors associated with gambling problems. Int J Ment Health Addiction 1 (2): 33-42.

Reid D, Reid F. (2004). Insights into the social and psychological effects of SMS text messaging. Retrieved June 25, 2005, from, http://socio.ch/mobile/index_mobile.htm

Rosman K. (2006). Blackberry orphans: the growing use of e-mail gadgets is spawning a generation of resentful children: a look at furtive thumb-typers, the signs of compulsive use and how kids are fighting back. Wall Street Journal, December 8:W1.

Sanchez-Martínez M, Otero A. (2009). Factors associated with cell phone use in adolescents in the community of Madrid (Spain). Cyber Psychology & Behavior 12, 131–137.

Schimmack U, Diener E, Oishi S. (2002). Life-satisfaction is a momentary judgment and a stable personality characteristic: The use of chronically accessible and stable sources. Journal of Personality 70: 345–384.

Shek DTL. (1999). Parenting characteristics and adolescent psychological well-being: A longitudinal study in a Chinese context. *Genetic,* Social and General Psychology Monographs 125 (1):27-55.

Şar AH. (2013). Examınatıon of lonelıness and mobıl phone addıctıon problem observed ın teenagers from the some varıables. The Journal of Academic Social Science Studies 6(2):1207-1220.

Şar AH and Işıklar A. (2012). Adaptation of Problem Mobile Phone Use Scale to Turkish. International Journal of Human Sciences 9(2):264-275.

Vitale, MG. (2001). The relationship between religiosity and life satisfaction in university students as measured by social support. PhD thesis, School of Professional Psychology, Chicago.

Walsh SP, White KM, and Young RM. (2008). Over-connected? A qualitative exploration of the relationship between Australian youth and their mobile phones. Journal of Adolescence 31: 77-92.

Yen CF, et al. (2009). Symptoms of problematic cellular phone use, functional impairment and its association with depression among adolescents in Southern Taiwan. Journal of Adolescence (32): 863-873.

Young MH, Miller BC. (1995). The effect of parental supportive behaviors on life satisfaction of adolescent Offspring. Journal of Marriage and Family 57: (3).

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