Trakya Üniversitesi Eğitim Fakültesi Dergisi
2017, Cilt 7, Sayı 1, 86-95

Geliş Tarihi: 22.09.2016 *Yayına Kabul Tarihi: 28.12.2016*

Nomophobia Prevalence among Pre-service Teachers: A case of Trakya University

Öğretmen Adayları Arasında Nomofobi Yaygınlığı: Trakya Üniversitesi Örneği

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Abstract: Mobile phones has become an indispensable tool for modern society. Although usage of cellular and smart phones make individual's life easier, they may also create some negative consequences such as addiction, anxiety, fear or unrest due to overuse. Nomophobia, which is called as phobia of modern era, is defined as fear and anxiety feelings that an individual feels while he/she cannot access or reach to mobile devices. Especially, with the prevalence of smart phones, it is thought that increased interaction with mobile communication technologies also boots nomophobia of individuals in the society. Nomophobia impair individuals focusing on their works in every part of their lives. Nomophobic behaviors may change daily habits such as sleeping habits and concentration on lessons, especially nomophobia affects students in a negative way in terms of school life and academic achievement. The purpose of this study is to investigate nomophobia prevalence among 818 pre-service teachers who are students in different departments at a state university in Turkey during the 2015-2016 fall semester. In this causal-comparative study, descriptive statistics, independent sample t-test, and one-way ANOVA analyses were used. Results showed that according to mean score of the instrument, pre-service teachers' nomophobia levels are higher than the mean and they feel anxious about not being able to communicate and not being able to access information. In addition to this, although there is not a significant different in terms of mobile phone usage hours, female pre-service teachers were found more nomophobic than males. Moreover, it is seen that when age increases nomophobia decreases, however in terms of smart phone usage frequency it is different: as usage frequency of smart phones increases, nomophobia increases as well.
Keywords: *Nomophobia, pre-service teachers, mobile technologies, smart phone.*

Öz: Mobil telefonlar, modern insan hayatının vazgeçilmez bir parçası haline gelmiştir. Cep telefonları ve akıllı telefonların kullanımı bireyin yaşamını kolaylaştırırken, aşırı kullanımı yüzünden bağımlılık, kaygı, korku veya huzursuzluk gibi bazı olumsuz durumlar ortaya çıkmaktadır. Son zamanlarda modern çağın fobisi olarak bahsedilen nomofobi, bireyin mobil cihazına erişemediğinde yaşadığı korku ve kaygı olarak tanımlanmaktadır. Özellikle akıllı telefonların yaygınlaşması ile toplumda bireylerin mobil iletişim teknolojileri ile daha etkileşimde olmalarının nomofobiyi beslediği düşünülmektedir. Nomofobi, bireyin yaşamının her alanında işlerine yoğunlaşmasını olumsuz yönde etkiler. Nomofobik davranışlar, özellikle uyku düzenini ve derse konsantre olma gibi günlük alışkanlıklarımızı değiştirebilmekte, özellikle öğrencilerin nomofobi yüzünden yaşadığı olumsuzluklar okul yaşantılarına ve akademik başarılarına da etki edebilmektedir. Bu çalışmanın da amacı, 2015-2016 öğretim yılı güz döneminde bir devlet üniversitesinde farklı branşlarda olmak üzere öğretmenlik bölümlerinde öğrenim gören 818 öğretmen adayı arasında nomofobinin yaygınlığını incelemektir. Nedensel-karşılaştırma yöntemiyle gerçekleştirilen çalışmanın analiz aşamasında betimsel istatistikler, bağımsız örneklem t-testi ve tek yönlü varyans analizi kullanılmıştır. Çalışmanın bulgularına göre, ölçekten alınan ortalama puan üzerinden öğrencilerin nomofobi düzeylerinin ortalamanın üzerinde olduğu ve iletişim kaybı ve bilgiye erişememe konusunda öğretmen adaylarının endişe duyduğu tespit edilmiştir. Çalışmanın diğer bulgularına göre öğretmen adayların cep telefonu kullanma süresi değişkenine göre anlamlı bir fark bulunmazken, cinsiyet açısından kadın öğrencilerin, erkek öğrencilere göre daha nomofobik olduğu görülmüştür. Ayrıca yaş değişkenine göre yaş arttıkça nomofobinin azaldığı, fakat akıllı telefon kullanma süresi arttıkça nomofobinin arttığı görülmüştür.
Anahtar sözcükler: *Nomofobi, öğretmen adayları, mobil teknolojiler, akıllı telefon.*

1. INTRODUCTION

A new era has been started with the existence of mobile phones especially smart phones. Previously, computers were in the center of our lives and in the following years internet usage was widened, however the focus has been changing dramatically over years after existence of tremendous number of mobile phones. Consequently, computer and internet technologies are now almost everywhere in our life, even in our hands. Hence, it is available to reach institutions, organizations, and individuals at any time independent from the environment. With recent developments, mobile phones not only provide voice and/or text communications among others, but also provide multidimensional communication opportunities due to smart phone capabilities (Adnan & Gezgin, 2016). Smart phones are commonly used by young generation who inquire socialization and the sense of being liked (Pavithra & Madhukumar, 2015). According to a research done by Google in January, 2015 with 13500 students in İstanbul, "Responsible Internet Usage Research" (Bilinçli İnternet Kullanımı Araştırması), 75% of the participants use their smart phones for internet connection. The same report indicates that, the rate of using mobile phones for internet connection

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is 61% among 14 or below aged students; on the other hand, this rate goes up to 80% among 17 or above aged students (Google, 2015). There is a tremendous increase in the number of smart phone owners due to newly launched smart phone operating systems and competition among mobile manufacturers (Park & et al., 2013). What is more, smart phones offer plenty of opportunities in every part of our lives such as; connecting to the Internet, taking photos, listening to radio and music, following the news, finding addresses and route, making reservations, banking, shopping, playing games, storing data, reading and writing documents, managing class, using learning management systems etc. Hence, they make daily lives and routines easier. In the contrary, despite many advantages, overuse uncontrolled and problematic usage of mobile technologies cause psychological disorders or increase such symptoms (Chòliz, 2012). A new psychologic terminology due to overuse and problematic usage of mobile technologies is existing nowadays: Nomophobia.

Nomophobia is defined as disconnection to mobile phones and standing off from them or the fear of being disconnected to the Internet (King, Valença, & Nardi, 2010). In other words, it can be summarized as the fear of being deprived of mobile phones. Nomophobia has been increasing parallel to increment of smart phone prevalence (Adnan & Gezgin, 2016; Broughton, 2015). Prevalence of nomophobia is generally observed among young generation (Kaur & Sharma, 2015; Pavithra & Madhukumar, 2015). Nomophobia affects individuals' daily lives in a negative way both physically and psychologically. In nomophobia, individuals start to feel anxious in variety of situations: forgetting it at home, running out of the battery, or when mobile phone losses its signal. This anxiety demotivates individuals to focus their daily routines (Dixit et al., 2010). Nomophobia causes some problems and symptoms of these problems are as following:

- Feeling insufficient or emptiness without mobile phone
- Checking his/her mobile phone like an obsessive even having it with themselves
- Feeling desperate when the battery ran out of
- Fear of forgetting the mobile phone somewhere, breaking down it or not to able to use it

There are some anxiety symptoms when they do not have it such as dizziness, heartthrob, lack of breathability, stomach cramps (Algül, 2014).

There has been increasing number of studies about nomophobia conducted by technology research companies and in the literature. On the other hand, there is a debate in the literature due to Nomophobia is a new phenomenon. Some of the researches refuse to accept it as a new category in the literature and thus it can be said that, this problem may cause from the lack of significant and/or sufficient studies. While current studies were examined, in a study supported by a digital encryption company it is stated that prevalence of nomophobia has been gradually increasing. In this study, conducted in England, there were 1.000 participants and 66% of them stated that they feel the fear of being apart from mobile phones (SecurEnvoy, 2012). In a similar study conducted in 2008, 53% of the mobile phone users have nomophobia symptoms such as feeling anxious and fear due to mobile phone loss, running out of the battery, and credit, and signal loss (Mail Online, 2008). As it can be seen, the rate is increased 15% in 4 years. In another study conducted with 200 Medical Students in Bangalore, India, it is found that 39.5% of the students were nomophobic (Pavithra & Madhukumar, 2015). In a similar research carried out with 200 17-28 years old medical students in Indore, India, it is revealed that 18.5% of the students have nomophobia symptoms (Dixit & et al., 2010). In addition to these, findings from variety of cultures and countries showed that nomophobia is a prevalence issue in the world and up-to-date topic (Chóliz, 2010; King & et al., 2013; Oksman & Turtiainen , 2004; Sharma & et al., 2015; Tavolacci & et al.,2015; Toda & et al., 2006). While investigating studies carried out in Turkey, in a study conducted by Yildirim et al. (2015) with 537 higher education students, it is found that 42,6% of the students (n=206) perform nomophobic behaviors. Similarly, Adnan and Gezgin (2016), tried to find prevalence of nomophobia among 433 higher education students and stated that nomophobia levels of these students are higher than average and students tent to perform nomophobic behaviors. Another study conducted with 475 adolescences by Gezgin and Çakır (2016) indicated that prevalence of nomophobia among adolescence is very risky and especially increase in the use of mobile internet is increase the possibility of nomophobia among them.

In this sense, research questions are set as follows:

1. What is the nomophobia prevalence among pre-service teachers?
2. Is there significant difference in nomophobia prevalence among pre-service teachers according to their gender?

3. Is there significant difference in nomophobia prevalence among pre-service teachers according to their age?
4. Is there significant difference in nomophobia prevalence among pre-service teachers according to their cell phone usage duration?
5. Is there significant difference in nomophobia prevalence among pre-service teachers according to their smart phone usage duration?

2. METHOD

2.1. Research Design

Causal-comparative design was used in this study. Causal-comparative research aims to determine already exist cause or consequences of differences between or among groups (Fraenkel & Wallen, 2006). In causal-comparative studies, there are at least two groups that affected in a different way from the same case or two different groups that only either was affected by the case; and these groups were examined upon different variables to determine possible causes or effects of current situation (Cohen & Manion, 1994).

2.2. Sample

Sample of the study is consisted of 818 pre-service teachers who are students in Faculty of Education in a public university in Turkey. Demographic information of the sample can be seen in Table 1.

Table 1. Demographic information of the participants

Gender	**N**	**%**
Female	589	72,0
Male	229	28,0
Age		
Below 20	341	41,7
20-22	321	39,2
Above 22	156	19,1
Department		
Computer Education	109	13,3
English Education	208	25,4
Early Childhood Education	83	10,1
Special Education	108	13,2
Social Science Education	42	5,1
Primary School Education	147	18,0
Music Education	43	5,3
Turkish Education	78	9,5
Duration of Cell Phone Ownership		
Less than 1 year	25	3,1
1-4 years	517	63,2
5 and more years	240	29,3
Duration of Smartphone Ownership		
Less than 1 year	63	7,7
1-4 years	586	71,6
5 and more years	169	20,7
Total	818	100.0

2.3. Instrumentation

In this study, Nomophobia Questionnaire (NMP-Q) developed by Yıldırım and Correia (2015) was used. The Scale contains 20 items upon 7-point Likert type. The reliability coefficient of the instrument (Cronbach's alpha) is found .95. According to Field (2005), if the reliability coefficient is greater than .80 then the reliability is very high and stated as excellent. In addition to this, this scale consisted of 4 sub-scales namely; "Not being able to access information" 4 items, "Losing connectedness" 5 items, "Not being able to communicate" 6 items, and "Giving up convenience" 5 items. Reliability coefficients of the sub-scales are .94, .87, .83, and .81 respectively. To gather data, Turkish version of NMP-Q, adapted by Yıldırım

et al. (2015), was used. Reliability of Turkish version is reported as .92; and sub-scales' are .90, .74, .94, and .91 respectively. In this study, this coefficient found .94 and sub-scales' are .87, .82, .94, and .92 respectively. In addition to these, demographic information form contains gender, age, department, duration of cell phone ownership, and duration of smartphone ownership.

2.4. Data Collection and Analysis

Data were collected from volunteer pre-service teachers by using convenience sampling with the help of the researchers and academicians. Data were analyzed by using SPSS (The Statistical Package for the Social Sciences) software. Some statistical techniques, standard deviation, mean, t-test, and one-way ANOVA, were used in order to address research questions. In order to determine nomophobia levels of pre-service teachers; t-test was used according to their gender, and one-way ANOVA was used according to their age, cell phone usage duration, and smart phone usage duration. To assess normality, Kolmogorov-Smirnov test was used and the result was significant ($p<.05$). Hence, for normal distribution, skewness and kurtosis measures was used. Tabachnick and Fidell (2007) stated that in the case of high sample size, if measures of skewness and kurtosis is between ± 1.96 then the normality assumption is not violated. In this study the values were found between these critical values, and thus normality assumption is met. In addition to this, Levene's test was used to control homogeneity of variance of the groups ($p>.05$). In this study, confidence interval is .95 and critical value of significance is .05.

3. FINDINGS

Results are presented according to research questions below in appropriate headings.

The mean of Nomophobia Scale was calculated ($\bar{X}$=3.96) and it is found that nomophobia levels of pre-service teachers are higher than average. While examining the sub-scale means, not being able to access information ($\bar{X}$=4.36), losing connectedness ($\bar{X}$=3.94) and not being able to communicate ($\bar{X}$=4.59) are also found greater than average. However, only giving up convenience ($\bar{X}$=2.90) is found lower than the average as seen in Table 2.

Table 2. Means and standard deviations of nomophobia scale and sub-dimensions

Nomophobia Scale and Sub-Dimensions	Min	Max	$\bar{X}$	SD
Not being able to access information	1	7	4,36	1,60
Losing connectedness	1	7	3,94	1,55
Not being able to communicate	1	7	4,59	1,68
Giving up convenience	1	7	2,90	1,63
Total	1	7	3,96	1,33

3.1. Gender Effect

Independent sample t-test was performed to assess whether there is a difference in nomophobia levels of pre-service teachers according to their gender. Results showed that, there is a significant difference between females ($\bar{X}$ = 4.10, SD=1.27) and males ($\bar{X}$=3.61, SD=1.40) pre-service teachers (t (816) =4.75, p = .000) as shown in Table 3. It can be stated that nomophobia levels of female pre-service teachers are higher than males ($\eta 2 = 0.027$).

Table 3. Independent t-test results of pre-service teachers according to gender

Gender	N	$\bar{X}$	SD	Df	t	p
Female	589	4,10	1,27	816	4,75	,000*
Male	229	3,61	1,40			

*p < .05

3.2. Age Effect

To examine nomophobia level differences with regard to age, one-way ANOVA was used. It is found that there is a significant difference in nomophobia levels of pre-service teachers according to their age (F

(2, 815) = 5,630, p = .004). A follow up test, Tukey Test, was performed to understand which groups differ from each other. Tukey HSD test results indicated that, there is a significant difference between below 20-year-old pre-service teachers ($\bar{X}$ = 4.13, SD = 1.34) and above 22-year-old participants ($\bar{X}$ = 3.73, SD = 1.43), and nomophobia levels of below 20-year-old group found higher than above 22 ones. On the other hand, no significant differences were found between below 20-year-old group and 20 – 22-year-old group and between 20 – 22-year-old group and above 22-year-old group. It can be claimed that decreasing the age may means increase in nomophobia level among pre-service teachers (η2 = 0.014).

Table 4. One-way ANOVA results with regard to age of pre-service teachers

		Sum of Squares	Df	Mean Squares	F	p
Age	**Between Groups**	19,603	2	9,801	5,630	,004*
	Within Groups	1418,752	815	1,741		
	Total	1438,355	817			

*p < .05

3.3. Duration of Cell Phone Ownership Effect

To investigate nomophobia level differences with respect to duration of cell phone ownership, one-way ANOVA was conducted. Results revealed that there is no significant difference among cell phone usage duration (F (2, 779) = 1,120, p = 0.327). It can be concluded that there is no any effect of duration of cell phone ownership on pre-service teachers' nomophobia levels (η2 = 0.003).

Table 5. One-Way ANOVA Results with regard to Duration of Cell Phone Ownership of pre-service teachers

		Sum of Squares	Df	Mean Squares	F	p
Duration of Cell Phone Ownership	**Between Groups**	3,997	2	1,998	1,120	,327
	Within Groups	1389,713	779	1,784		
	Total	1393,709	781			

3.4. Age Effect

One-way ANOVA was performed to examine whether there is a difference in nomophobia levels of pre-service teachers according to their smartphone ownership. Results showed that there is a significant difference in nomophobia levels of pre-service teachers according to their smart phone usage duration (F (2, 815) = 3,640, p = 0.027). To investigate which groups differ from each other Tukey follow up test was performed. Tukey HSD test results revealed that, there is a significant difference between below one-year usage duration group ($\bar{X}$ = 3.72, SD = 1.21) and above five-year usage duration group ($\bar{X}$ = 4.18, SD = 1.25). On the other hand, no significant differences were found between below one-year usage duration group and 1 - 4-year usage duration group and between 1 - 4-year usage duration group and above five-year usage duration group. Hence, it can be stated that increase in the duration of smartphone ownership increases nomophobia level among pre-service teachers (η2 = 0,009).

Table 6. One-Way ANOVA Results with regard to Duration of Smartphone Ownership of pre-service teachers

		Sum of Squares	Df	Mean Squares	F	p
Duration of Smart Phone Ownership	**Between Groups**	12,734	2	6,367	3,640	,027*
	Within Groups	1425,621	815	1,749		
	Total	1438,355	817			

*p < .05

4. DISCUSSION and CONCLUSION

In this study, it is found that nomophobia levels of participants are higher than the average and especially they are observed to be touchier to nomophobia in terms of "not being able to access information", and "losing Connectedness" sub-scales. In a similar study, conducted with 537 higher education students, and Yildirim et al, (2015) stated that 42.6% of the students (n=206) perform nomophobic behaviors. The same study also declared that "not being able to access information", and "losing Connectedness" factors become more of an issue among young population. In addition to this, Adnan and Gezgin (2016), found the prevalence of nomophobia among 433 higher education students just over the average. As the same scale NMP-Q was used, it is possible to compare sub-scales with current study. While compared, it is seen that points of "not being able to access information", and "losing Connectedness" factors are higher among students similarly. What is more, while examining studies conducted in India, it is seen that great amount of students are either perform nomophobic behaviors or under the risk of it. While Sharma et al. (2015) found that 73% of the 130 medical students display nomophobic behaviors; Pavithra and Madhukumar (2015) found this rate as 39.5% and stated that 27% of the 200 medical students are in the risk nomophobia. Similarly, in a study conducted with 760 higher education students in France, it is claimed that one of third of the students are nomophobic (Tavolacci & et al., 2015). The last, but not the list, in the study carried out by Secur Envoy (2012) in England, 77% of the 18-24-year-old students feel anxiety of losing their mobile phones and thus they have fear about this situation.

In terms of gender effect, a significant different was found between males and females. Female pre-service teachers are more nomophobic than male ones. There are plenty of studies support this argument and stating that females tent to be more nomophobic than males (Gezgin & Cakir, 2016; SecurEnvoy, 2012; Tavolacci & et al., 2015; Yildirim & et al., 2015). On the other hand, there are counter studies and reports claim that there is no significant difference in terms of gender (Adnan & Gezgin, 2016; Dixit & et al., 2010; Uysal, Özen, & Madenoğlu, 2016) or stating that males are more affected by nomophobia than females (Mail Online, 2008).

In the manner of age effect, it is found that there is a significant difference in nomophobia levels of pre-service teachers with respect to their ages. Results showed that there is a significant difference between below 20-year-old group and above 22-year-old group. Below 20-year-old group are reported more nomophobic than above 22-year-old group. Although there is such a difference, no significant difference was found between below 20-year-old group and 20 – 22-year-old group, and between 22 – 24-year-old group and above 22-year-old ones. Likewise, in one study nomophobia levels of the participants were investigated and it is claimed that nomophobia levels of 18 – 24 year-old participants' (77%) are higher than 25 – 34-year-old group (68%) (SecurEnvoy, 2012). On the other hand, Yildirim et al. (2015) found no significant difference between below 20-year-ol group and above 20-year-old group in terms of nomophobia levels. Similarly, Adnan and Gezgin (2016) also found no significant differences on nomophobia levels of 433 higher education students with respect to their ages.

Another thing is that, no significant difference was found about nomophobia levels of pre-service teachers with respect to their duration of cell phone ownership. Similarly, Yildirim et al. (2015) also found no significant difference between participants who have below and above 7-year cell phone ownership. In another study, it is stated that duration of cell phone ownership has no effect on nomophobia (Adnan & Gezgin, 2016).

A significant difference in nomophobia levels of pre-service teachers in terms of duration of smart phone ownership. Results revealed that there is a significant difference between below one-year smart phone owners and more than five years smart phone owners about nomophobia levels, and pre-service teachers who have more smart phone experience – more than five years – have high level of nomophobia. In contrast, no significant differences were found between below one-year smart phone owners and 1 - 4-year smart phone owners and between 1 - 4-year smart phone owners and above five-year smart phone owners. Likewise, there are some studies claiming that spread use of mobile devices affect young population and increase their smart phone usage duration and so their nomophobia levels. Kalaskar (2015) stated that 90% of the participant students have been using smart phones for 2 and more than 2 years and those who use their smart phones more than 5 – j 6 hours a day are indefensible to variety of situation caused by nomophobia such as anxiety, sleeplessness, stress, distractibility etc. In the same manner, Yildirim et al. (2015) declared a significant difference between students whose duration of smart phone owner is equal or less than two years and more than two years, that goes in more than two years owners' favor. Hence, it can be concluded that increase in duration of smart phone usage may cause increase in

nomophobia ($\eta 2 = 0{,}009$). Nonetheless, there are some studies claiming that duration of smart phone ownership has no effect on nomophobia (Adnan & Gezgin, 2016; Gezgin & Çakır, 2016).

It has been known that mobile devices especially smart phones provide plenty amount of benefits to individuals in daily life. However, people become addicted to such technologies when they are used in every part of our lives (Uysal, Özen & Madenoğlu, 2016). It is also claimed that smart phone addiction may trigger nomophobia (Pavithra & Madhukumar, 2015). Our daily routines may change due to nomophobia, a modern era phobia, and this may make students faced with some obstacles in their school life and academic achievement; as Gupta, Garg and Arora (2016) stated overuse of smart phones has negative effects on our psychological health and sleeping pattern. It is believed that nomophobic students will encounter with barriers while listening to the course or focusing on achieving a homework or a goal, and thus they will not concentrate and pay their attention to these due to anxiety they feel (Adnan & Gezgin, 2016). In this sense, teachers, parents, and school administrators have very important responsibilities. Both teachers and pre-service teacher are the role models for the students and they can affect society in the same manner, thus they need to be aware of nomophobia. Because it is known that teachers are under the pressure while planning and conducting their lessons with nomophobic students (Okaz, 2015). Teachers should know not only the benefits of technological instructional materials, mobile learning applications etc. but also negative sides that caused by nomophobia. In this perspective, Spitzer (2015) discussed the role of smart phones in mobile learning context and claimed that smart phone is an often-ignored risk in teaching and learning environment and may causes some side effects such as addiction, attention deficit disorder, empathy disorder, underachievement due to interrupted learning, hypertension, obesity, anxiety, depression, personality disorder, aggression, dissatisfaction, and loneliness. The last but not the least, pre-service teachers should remember that they will be the role model for the students and should know that they cannot make efficient teaching and cannot motivate themselves to deliver lessons due to anxiety and fears caused by nomophobia. Hence, first, they should be aware of their nomophobia levels and make provision against it. From the students' perspective, they should provide a controlled smart phone use during mobile learning activities, both in-class and out-of-class activities, by taking in hand emotion, behavior, and habit differences and changes caused by mobile devices. In other words, they should limit application sessions' time, thus they will exterminate obstacles and will create efficient learning environments (Adnan & Gezgin, 2016).

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UZUN ÖZ

GİRİŞ

Mobil telefonların özellikle de akıllı telefonların ortaya çıkması ile birlikte yepyeni bir çağ başlamıştır diyebiliriz. Önceki yıllarda bilgisayarlar hayatımızın olmazsa olmaz bir parçası ve internet vazgeçilmez bir araç durumunda iken günümüzde ortaya çıkan mobil telefonlar ile büyük bir değişim yaşanmıştır. Bunun sonucu olarak artık bilgisayar ve internet teknolojileri hayatımızın her anında ve her yerinde yanımızda adeta avuç içimizde bulunmaktadır. Dolayısıyla mekândan bağımsız olarak kişi ve kuruluşlara herhangi bir zamanda erişmek olanaklı hale gelmiştir. Son dönem gelişmelerle, mobil telefonlar artık yalnızca bir diğer kişiyle sözlü veya kısa mesaj aracılığıyla yazılı iletişim kurmak için kullanılmamakta, akıllı telefon özellikleriyle çok yönlü iletişim olanağı sağlamaktadır (Adnan & Gezgin, 2016). Akıllı telefonlar, sosyalleşme ve beğenilme ihtiyacı olan genç nesil arasında çok popüler ve yaygın olarak kullanılmaktadır (Pavithra & Madhukumar, 2015). Mobil teknolojinin yani mobil cihazların bireyler için getirdiği sosyal ve kişisel yararların yanında teknolojinin aşırı, kontrolsüz ve problemli kullanımı psikolojik sorunlara ve bu problemlerin artmasına sebep olabilmektedir (Chóliz, 2012). Son zamanlarda mobil teknolojilerin aşırı ve problemli kullanımı yüzünden yeni bir psikolojik terim telaffuz edilmektedir: Nomofobi.

Nomofobi, mobil telefonu ile iletişime geçememe ve mobil telefonundan ayrı kalma ya da Web'e bağlanama durumunda yaşanan korku olarak tanımlanmaktadır (King, Valença & Nardi, 2010). Fakat kısaca cep telefonundan mahrum olma korkusu olarak ifade edilmektedir. Cep telefonundan mahrum kalma korkusu olarak da ifade edilen nomofobi, akıllı telefonların yaygınlığının artmasına paralel olarak artış göstermiştir (Broughton, 2015; Gezgin & Adnan, 2016). Nomofobi yaygınlığı toplumda özellikle gençler arasında artmaktadır (Kaur & Sharma, 2015; Pavithra & Madhukumar, 2015). Nomofobi yüzünden bireyler günlük yaşamlarında hem fiziksel hem de ruhsal olarak olumsuz etkilenmektedir. Nomofobide birey, telefonunu yanına almayı unuttuğunda, telefonunun bataryası boşaldığında ya da cep telefonu sinyal alıp vermediğinde kaygı duymaya başlar. Bu kaygı, bireyin yaşamında günlük işlere yoğunlaşmasını olumsuz yönde etkilemektedir (Dixit & diğ., 2010).

Teknolojinin giderek daha da hızlı geliştiği ve yaygınlaştığı bu çağda toplumun gelişmesinde ve yeniliklere uyum sağlamasında ve ayrıca ortaya çıkabilecek problemlerin engellemesinde en büyük görevin öğretmenlere düştüğünü söyleyebiliriz(Karaman & Kurtoğlu, 2009). Bu açıdan geleceğin öğretmenlerinin arasında nomofobi yaygınlığını ortaya çıkarmak önem kazanmaktadır. Böylelikle öğretmen adaylarının

nomofobi yüzünden hem kendi yaşamı hem de model oldukları öğrencilerin yaşamında karışılabilecekleri problemleri ortadan kaldırmak için gerekli önemleri alması açısından da yol gösterici olacağı düşünülmektedir.

YÖNTEM

Bu çalışmanın amacı, 2015-2016 öğretim yılı güz döneminde bir devlet üniversitesinde farklı branşlarda olmak üzere öğretmenlik bölümlerinde öğrenim gören 818 öğretmen adayı arasında nomofobinin yaygınlığını incelemektir. Nedensel-karşılaştırma yöntemiyle gerçekleştirilen çalışmanın analiz aşamasında betimsel istatistikler, bağımsız örneklem t-testi ve tek yönlü varyans analizi kullanılmıştır. Çalışmada veri toplama aracı olarak Yıldırım ve Correia (2015) tarafından geliştirilmiş olan Nomofobi Ölçeği (NMP-Q) Ölçeğinin Yıldırım ve diğ.(2015) tarafından Türkçeye uyarlanmış hali kullanılmıştır.

BULGULAR

Çalışmanın bulgularına göre, ölçekten alınan ortalama puan üzerinden öğrencilerin nomofobi düzeylerinin ortalamanın üzerinde olduğu ve iletişim kaybı ve bilgiye erişememe konusunda öğretmen adaylarının endişe duyduğu tespit edilmiştir. Çalışmanın diğer bulgularına göre öğretmen adayların cep telefonu kullanma süresi değişkenine göre anlamlı bir fark bulunmazken, cinsiyet açısından kadın öğrencilerin, erkek öğrencilere göre daha nomofobik olduğu görülmüştür. Ayrıca yaş değişkenine göre yaş arttıkça nomofobinin azaldığı, fakat akıllı telefon kullanma süresi arttıkça nomofobinin arttığı görülmüştür.

TARTIŞMA ve SONUÇ

Mobil cihazların özellikle de akıllı telefonların kullanımının bireylerin yaşamları açısından kolaylıklar sağladığı bilinmektedir. Fakat teknoloji hayatımızda her şeyin yerini almaya başladığında ona bağımlı hale gelmek kolaylaşmaktadır (Uysal, Özen, & Madenoğlu, 2016). Akıllı telefon bağımlılığının da nomofobinin tetikleyicisi olduğu ileri sürülmektedir (Pavithra & Madhukumar, 2015). Günümüzde bahsedilen modern çağın yeni fobisi olan nomofobi yüzünden günlük alışkanlıklarımız değişebilmekte, öğrencilerin nomofobi yüzünden yaşadığı olumsuzluklar okul yaşantılarına ve akademik başarılarına da etki edebilmektedir. Çünkü akıllı telefonların aşırı kullanımı psikolojik sağlığımız ve uyku düzenimiz üzerinde olumsuz etkiler oluşturmaktadır(Gupta, Garg, & Arora, 2016). Nomofobik davranışlara sahip öğrencilerin, sınıfta ders dinlemeye veya verilen ödev ve çalışmaları gerçekleştirmeye yoğunlaşmada sıkıntı çekecekleri, yaşadıkları kaygı yüzünden dikkatlerini toplayamayacakları düşünülmektedir (Adnan & Gezgin, 2016). Bu açıdan öğretmenlere, ailelere ve okul idarecilerine görevler düşmektedir. Özellikle öğrencilerin model olarak gördüğü ve toplumu şekillendiren öğretmenlerin ve şekillendirecek öğretmen adaylarının nomofobi ile mücadele edebilmesi için nomofobi hakkında farkındalık sahibi olması gerekir. Çünkü öğrencilerin artan nomofobik davranışları ile öğretmenlerin derslerini nasıl planlayacakları konusunda da baskı altında olduğu bilinmektedir (Okaz, 2015). Öğretmenler derslerinde kullanabilecekleri yardımcı teknolojik materyallerin ya da mobil öğrenme yazılımlarının faydalarının yanında öğrenciler üzerinde nomofobi sonucunda olumsuz etkiler yaratabileceğini bilmelidirler. Öğretmenler derslerinde kullanabilecekleri yardımcı teknolojik materyallerin ya da mobil öğrenme yazılımlarının faydalarının yanında öğrenciler üzerinde nomofobi sonucunda olumsuz etkiler yaratabileceğini bilmelidirler. Bunu destekler şekilde akıllı telefonların mobil öğrenme kavramı içerisindeki yerini tartışan Spitzer (2015), akıllı telefonların eğitim ortamlarında çoğu zaman göz ardı edilen risk ve yan etkilerinin bağımlılık, dikkat bozukluğu, duygudaşlık bozukluğu, öğrenmenin sekteye uğraması sonucu eğitim başarısında düşüş, hipertansiyon, obezite, kaygı, depresyon, kişilik bozukluğu, agresyon, tatminsizlik ve yalnızlık olduğu üzerine dikkati çekmiştir. Son olarak, öğretmen adaylarının ilerideki okul yaşamında öğrencilerin kendilerini model aldığını unutmamalı, nomofobi yüzünden oluşabilecek kaygı ve korkularının sonucu ders anlatımına motive olamayacağını ve öğrencilere verimli ders anlatamayacağını bilmelidir. Bu yüzden ilk önce kendinin nomofobi farkındalığında olup böyle bir durum söz konusu ise önlemler almalıdır. Öğrenciler açısından düşünüldüğünde mobil cihazların öğrencilerin duygu, davranış ve alışkanlıkları üzerinde yol açtığı değişimleri gözeterek sınıf içi ya da sınıf dışı eğitim-öğretim faaliyetlerinde mobil öğrenme etkinliklerinde denetimli bir anlayış getirmeli yani uygulama oturumlarını zamanla sınırlamalı böylece olumsuzlukların ortadan kaldırılmasına ve daha etkin öğrenme ortamlarının yaratılmasına katkı sağlayacaktır (Adnan & Gezgin, 2016).