



## RELATIONSHIP BETWEEN PSYCHOLOGICAL RESILIENCE AND NOMOPHOBIA: UNIVERSITY BELONGING AS A MODERATOR VARIABLE

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### ABSTRACT

The aim of this study is to examine the effect of university belonging as a moderator variable on the relationship between psychological resilience and nomophobia in teacher candidates. The study is a correlational survey model study. The study is a correlational survey model study. The study group was formed by students from the Faculty of Education at Uşak University. The scales have been sent by email. The data of 1058 teacher candidates who fully responded to the scales were analyzed using the JAMOVI 2.6 software package. The scales "Nomophobia," "University Belonging," and "Psychological Resilience" found in the literature were used as data collection tools. Although psychological resilience has a low direct effect on nomophobia, it has been determined that the effect of psychological resilience on nomophobia increases when university belonging is a moderator variable. University belonging mediates the relationship between psychological resilience and nomophobia. In order to manage nomophobia anxiety and increase university belonging, teacher candidates' participation in social responsibility projects and social activities at universities should be encouraged by university administrations.

**Keywords:** Nomophobia, university belonging, psychological resilience, teacher candidates.

### INTRODUCTION

Nomophobia was first used in research by the UK Post Office in the early 21st century. It has been used to identify users' concerns stemming from the lack of smartphones and other communication equipment, and the consequences of this situation. Nomophobia is a new term that describes the fear, discomfort, or anxiety a person feels when they don't have their smartphone. This situation involves the fear of being unable to make or receive phone calls, send or receive text messages, lose internet connections and access to social networking sites, or be unable to access online information (Vagka, etc., 2023). In the age of social media, nomophobia is commonly seen in individuals who fear missing updates, social events, and instant rewards. Research shows that university students, in particular, mostly use social media applications on their smartphones (Ayar, etc., 2018). The prevalence of nomophobia varies across different populations. Nomophobia, a condition commonly seen among teenagers and young adults, is also widely observed among university students (León-Mejía, etc., 2021). Nomophobia can be associated with conditions such as anxiety, stress, addiction, low self-esteem, social problems, low achievement, and fear; this can also lead to disappointment and obsessive thoughts (Daei, etc., 2019).

Various studies have identified a range of harmful effects of nomophobia on individuals' mental health, including loneliness and isolation from the physical world. These negative effects include problems with self-esteem, maladaptive personality traits, insomnia, depression, anxiety and stress symptoms, and low quality of life (Jahrami, etc., 2023). Individuals with nomophobia feel anxious when they cannot use or control their mobile phones and try to avoid situations that keep them away from the convenience provided by mobile phones (Pekin, etc., 2022). Among the symptoms of nomophobia is a condition known as phantom vibration syndrome. This condition refers to the false sensation that one's phone is ringing (Rao, etc., 2023). In addition, resisting nomophobia is considered an indicator of an individual's psychological well-being (Bhattacharya, et., 2019). Studies have been conducted on the negative factors that trigger or fuel nomophobia in the literature. Studies have been conducted on the negative factors that trigger or fuel nomophobia in the literature. However, research on variables aimed at preventing nomophobia (psychological resilience, belonging, etc.) could raise awareness in managing nomophobia anxiety.

### Psychological Resilience

Psychological resilience is an important research topic in the field of positive psychology. Individual's ability to cope with difficult conditions is explained by psychological resilience (Öz & Yılmaz, 2009). The concept of psychological resilience is used in the sense of being flexible in Latin (Doğan, 2015). Psychological resilience, according to various dictionary definitions, is expressed as an individual's ability to return to their original state after experiencing stress or pressure, and their ability to recover by gaining strength and courage. Psychological resilience encompasses individuals' capacity to quickly recover from change, illness, or adverse life events and regain their previous level of functioning (Karairmak, 2006). For the concept of

psychological resilience to be valid, the individual must first be in a risk group or have experienced a traumatic life event (Gizir, 2007). Risk is any event, situation, or experience that increases the likelihood of a problem arising, persisting, or worsening. The risk factors that individuals frequently face can be explained under three headings. These are individual, familial, and environmental factors (Öz & Yılmaz, 2009): Individual risk factors include alcohol use, unintended pregnancy, premature birth, low IQ level, chronic or mental illness, substance use, academic failure, difficult personality traits, and belonging to an ethnic group. Family risk factors include having many children, having parents with mental or chronic illnesses, having parents who use drugs or have committed crimes, parental divorce, death, or single-parent families, and domestic violence. Environmental risk factors include low socioeconomic status, abuse, poverty, homelessness, child neglect, malnutrition, negative peer support, and social violence. Against these risks, protective factors such as positive adult relationships, social support systems, positive school relationships, positive peer support, role models, and a high level of belonging can increase an individual's resilience to environmental stress and other adverse circumstances. The psychological resilience of adolescents is shaped by the interaction of individual, familial, and environmental factors. When these factors are positive, they have a positive effect on psychological resilience; when they are negative, they have a negative effect on psychological resilience. Therefore, awareness of protective factors such as social support and high belonging is important for supporting adolescents' psychological resilience (Çınar, 2025).

### **University Belonging**

A sense of belonging is the feeling of forming a deep connection with social groups or physical spaces through various experiences. Individuals need to belong and be accepted in order to maintain their existence within society, and these needs guide the individual's search for thought, behavior, and identity (Tracy, etc., 2007). The concept of university belonging is a broad phenomenon that encompasses not only the academic but also the social aspects of students' lives. Studies on academic belonging in the literature generally focus on middle school and high school students and students in the transition period to university (Freeman & Anderman, 2007; Goodenow, 1993; Nichols, 2008; Osterman, 2000; Schlanger, 1998). Research on belonging, particularly in higher education, is known to have begun in the United States in the 1970s, when the concept of belonging was used as a resource for institutional evaluation and improvement efforts at universities (Kızılıkaya & Doğan, 2022). University belonging, in its most general definition, means that the student is included in the university community and feels like a part of the institution (Hurtado & Carter, 1997; Maestas, etc., 2007). The university environment is a space where students can acquire and transform the knowledge necessary for their personal and career development. When students do not see themselves as valued members of the institution where they are educated, the acquisition of knowledge and skills may slow down, stop, or even turn negative (Sotardi, 2022). The student's participation in academic work and in social and sporting activities organized at school represents the behavioral dimension of belonging to the school (Finn, 1993; Finn & Voelkl, 1993). University belonging is fundamentally based on factors such as continuous effort and concentration (Skinner, etc., 2009). Behavioral belonging encompasses actions that yield observable results, including behaviors such as the student asking questions in class, following the lesson, completing assignments related to the lesson, and demonstrating effort. Another dimension of belonging, the affective (motivational) dimension, is most broadly defined as feeling connected to the school's values and climate (Finn, 1993). Students with a strong sense of belonging to the university exhibit positive traits such as curiosity and interest in classes and school, whereas the opposite situation may lead to emotional detachment, fatigue, sadness, and disappointment (Skinner & Belmont, 1993). The student's emotional sense of belonging to their educational institution is also related to the acceptance, respect, and support they receive from teachers at school (Strayhorn, 2019).

### **Problem Status**

The literature shows that there are many studies on the relationship between belonging and academic achievement, and on the relationship between belonging and stress among students (Cortés Pascual, etc., 2019; Stadler, etc., 2016; Esentürk Ercan, 1998; Yeniad, etc., 2013; Toraman, etc., 2020; Coulacoglou & Saklofske, 2017; Yu, Mak & Boddycott, 2021; Martinez-Callaghan & Gill-Lacruz, 2017). Other studies on university belonging focus on the economic and cultural problems encountered by international students, and examine the relationships between belonging and social conflict, burnout, life satisfaction, subjective well-being, and anxiety (Narseyitov, 2021; Bardakçı & Arslan, 2021; Ahmed, 2023; Hoffman, etc., 2002; Burke, 2023; Cena, etc., 2021; Yıldırım, etc., 2021; Arkoudis, etc., 2019; Sharma, 2016). Studies on nomophobia include the relationship between nomophobia and loneliness, nomophobia and stress, nomophobia and personality traits, the causes and consequences of nomophobia, and the effect of demographic variables on nomophobia (Santl, etc., 2022; Heng & Wang, 2023; Çelebi, etc., 2020; Bragazzi, etc., 2019; Husniesham, etc., 2022). While there are various studies in the literature on the relationship between loneliness and stress variables and nomophobia among university students, it is seen that there are insufficient studies examining the relationship between university belonging and psychological resilience and nomophobia. However, there is literature information in the literature regarding the relationship between nomophobia and psychological resilience and belonging (Çınar, 2025; Ak, 2025). For these reasons, this study examined the relationship and effect of university belonging on nomophobia, in addition to psychological resilience, which is an individual characteristic. The data were analyzed and evaluated in the context of the following questions:

- Is there a significant relationship between psychological resilience and university belonging among teacher candidates and nomophobia?

➤ Does university belonging act as a moderator variable in the relationship between psychological resilience and nomophobia?

## 2. METHOD

### 2.1. Study Design

This study is a correlational survey model study using quantitative research methods. The correlational survey model is a research model that aims to determine the direction and degree of simultaneous change between at least two or more variables (Aypay, 2022).

### 2.2. Study Group

The study group consists of education faculty students enrolled at Uşak University during the fall semester of the 2025-2026 academic year. An email containing a survey link has been sent to the email addresses of all teacher candidates enrolled in the faculty of education. The scale data of 1,058 teacher candidates who answered the scales in the link completely were included in the analysis. Of the teacher candidates in the study group, 782 are male and 276 are female.

### 2.3. Data Collection Tools

Psychology Resilience Scale: In the research, the short psychological resilience scale consisting of 6 items developed by Doğan was used to measure the level of psychological resilience awareness of the experimental group students. The scale is a unidimensional scale and the Kaiser-Meyer-Olkin (KMO) value of the scale was calculated as .85 (Doğan, 2015).

Nomophobia Scale: The scale was developed by [Yıldırım and Correia \(2015\)](#). The internal consistency coefficient of the scale, which consists of a total of 20 items, was determined to be *University Belonging Scale*:.92.

University Belonging Scale: The sense of belonging scale for university students was developed by Goodenow (1993). It was adapted into Turkish by Sarı (2015). The Cronbach's alpha reliability coefficient of the scale was determined to be .85.

### 2.4. Data Analysis

The normality test performed in the Jamovi 2.6 package program resulted in the following: data related to the expected average Loneliness scale (ShapiroWilk - Skewness (.198) > .05; Kurtosis (1.17), > .05), data related to Nomophobia scale (ShapiroWilk - Skewness (.184) > .05; Kurtosis (1.02), > .05), and data related to University Commitment Scale (ShapiroWilk - Skewness (.120) > .05; Kurtosis (1.18), > .05) were found to be normally distributed. Parametric tests, including the t-test, correlation, and mediation test, were performed on data showing a normal distribution.

## 3. RESULTS

The findings related to the two sub-objectives of the study are presented in Table 1 and Figures 1-2.

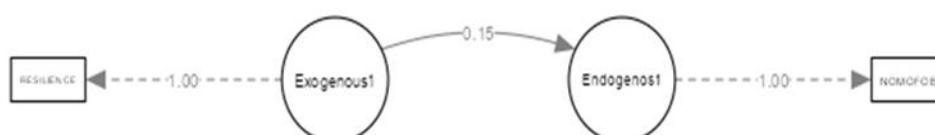
Table 1 : Correlation Matrix

		Nomofobia	Resilience	University Commitment
Nomofobia	r	1	-.27**	-.35**
	p		.000	.000
Resilience	r	-.27**	1	.24**
	p	.000		.000
University Commitment	r	-.35**	.24**	1
	p	.000	.000	

\*\* Correlation is significant at the 0.01 level

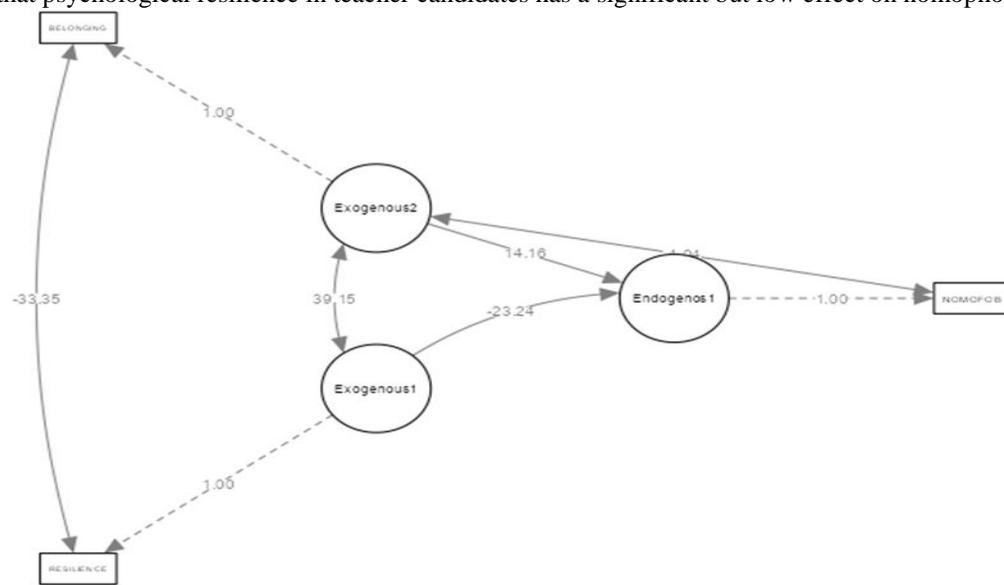
According to the correlation test conducted in the Jamovi 2.6 program, a negative and significant correlation ( $r = -.27$ ,  $p < .001$ ) was found between nomophobia and psychological resilience among teacher candidates. As psychological resilience increases in teacher candidates, nomophobia anxiety decreases; as psychological resilience decreases, nomophobia anxiety increases. A negative and significant correlation has been determined between nomophobia and university belonging ( $r = -.35$ ,  $p < .001$ ). It has been observed that as university belonging increases among teacher candidates, nomophobia anxiety decreases, and as belonging decreases, nomophobia anxiety increases.

A positive and significant correlation was found between psychological resilience and university belonging ( $r = .24$ ,  $p < .001$ ).



**Figure 1:** The Effect of Psychological Resilience on Nomophobia

It is observed that psychological resilience in teacher candidates has a significant but low effect on nomophobia.



**Figure 2: Mediating Model**

When university affiliation was included as a moderating variable in the relationship between psychological resilience and nomophobia, the effect of psychological resilience on nomophobia differed significantly (-23.24). The significant effect of university belonging as a moderating variable between psychological resilience and nomophobia has been determined. The inverse effect of psychological resilience on nomophobia in teacher candidates is dependent on the moderator variable of university affiliation. The fit indices for this mediation model [ $\chi^2/df=1.06$ , NFI = 0.94, NNFI = 0.95, CFI = 0.95, IFI = 0.95, RFI = 0.97, GFI = 0.96, AGFI = 0.96, RMSEA = .060, and SRMR = .021] are stated to be at a high level (Hair, et al., 1998; Hoyle, 1995; Hu & Bentler, 1999; Kline, 2005; Browne & Cudeck, 1992; Baumgartner & Homburg, 1996).

#### 4. CONCLUSION And DISCUSSION

A significant inverse correlation was found between nomophobia and psychological resilience in teacher candidates. A significant inverse correlation has been found between nomophobia and university belonging. A positive and significant correlation was found between psychological resilience and university belonging. According to various research findings in the literature, students with a high sense of university belonging also tend to show a high resistance to negativity (Liu & Wei, 2020; Martinez-Callaghan & Gill-Lacruz, 2017; Coulacoglu & Saklofske, 2017; Yu, Mak & Boddy, 2021; Ahmed, 2023; Burke, 2023; Kazandırmak Oflaz, 2024). As can be seen, the findings in the literature support the findings in this study.

When university affiliation was included as a mediating variable in the relationship between psychological resilience and nomophobia, it was determined that psychological resilience's effect on nomophobia increased significantly. University belonging has shown a moderating effect between psychological resilience and nomophobia. The fact that university belonging has shown a meaningful mediating effect reveals that nomophobia may vary not only according to personality traits, stress, and perception of loneliness, but also in relation to institutional life. According to various research findings in the literature, it has been determined that students with low psychological resilience levels have higher levels of nomophobia anxiety (Essa, 2023; Maraş, 2021; Lia, etc., 2010; Leó Li, etc., 2010; Prabha, etc., 2023). It is seen that different research findings support these research findings.

It is considered necessary to manage young people's nomophobia anxiety at universities. Universities are expected to create a social support environment that meets students' personal, social, and academic expectations, thereby reducing nomophobia anxiety. Participation in social responsibility projects and lifelong learning activities, in addition to theoretical courses at universities, should be accepted as a criterion for graduation. Thus, as participation in social responsibility projects and lifelong activities is supported, students' sense of belonging is expected to increase.

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