Prediction of nomophobia based on attachment styles with the mediating role of loneliness in adolescents

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Abstract

Aim: The present study was conducted with the aim of predicting nomophobia based on attachment styles with the mediating role of loneliness in adolescents. **Methods:** This research design was correlational and structural equation modeling. The research sample consisted of 500 working students studying in the second secondary course in the academic year 2020-2021, who were selected by online sampling method. Yıldırım and Correa's Nomophobia Questionnaire (2015), Collins and Reid's Adult Attachment Scale (1990) and DiTomaso et al.'s (2004) Loneliness Scale were used to measure the research variables. Data were analyzed with Pearson correlation coefficient and structural equation model. **Results:** The findings showed that the direct paths of this research of avoidant and ambivalent attachment styles were significant except for the perceived secure attachment style on nomophobia. Also, the results of the modified confirmatory factor analysis show (P = 0.001, F = 0.626) and the results indicate a good fit of the measurement model with the data; and all observed variables had a factor load higher than 0.3. In the other part of the results related to the direct paths, attachment styles were significant on the feeling of loneliness. Also, all the indirect paths of attachment styles through the mediating role of loneliness on nomophobia were significant. Also, the findings show that attachment styles and feelings of loneliness can predict 54% of the changes in nomophobia. The coefficient of determination of the variable feeling of loneliness is equal to 38% in the moderate to strong range. **Conclusion:** Therefore, variables of perceived attachment styles are predictors of nomophobia in adolescents.

Keywords: *attachment styles, loneliness, nomophobia, adolescents.*

Introduction

Due to the ever-increasing development of technology, smart mobile phones are one of the most used communication devices in the world today and have influenced the human lifestyle and have become an essential tool (Parsakia, Rostami, and Saadati, 2023). Therefore, access to smart phones is increasing worldwide (Nathan and Zeitzer, 2018) and its use is especially common among teenagers and young adults in the world (Parsakia et al., 2023). In other words, nowadays, the mobile phone is no longer a simple communication device for talking on the phone, but it is a device with a set of features, each of which opens up a new world for users and dozens of new ways for different types of communication, such as connecting to It involves social networks and the Internet (Parsakia et al., 2023). Despite the liberating advantage that the advancement of new technology has given to our lives, we see the problematic use of technology that has had negative effects on some people (Alvarez-Cabrera et al., 2021). The psychological impact of the use of new technologies on individuals, groups and society in general is related to changes in behavior and habits, and more studies should be done in order to understand the interactive effects and relationships (Parsakia et al., 2023).

A person suffering from nomophobia becomes overly anxious if his phone is cut off while talking to friends and relatives, or if he loses contact, or when the battery is running out or about to run out; This fear can also be caused by the loss and fear of not having access to information, which is often accompanied by a strong sense of failure in the individual (King, Valenka, & Nardi, 2010). Therefore, nomophobia comes from the feeling of not being able to communicate and receive and send phone calls and text messages, disconnection from the Internet and lack of access to social networking sites, and generally lack of online access to information (Yildirim & Correa, 2015).

One of the variables that can be related to the phenomenon of nomophobia, attachment and perceived styles, is the feeling of loneliness, which has attracted the attention of experts and researchers in recent years. Loneliness does not mean being "isolated" because it is partly based on individual perception (Perlman, Peplau, & Goldston, 1984). Therefore, the feeling of loneliness is a kind of negative emotion that is caused by the difference between the level of existing and expected social interactions. The feeling of loneliness is not just not being in a group or being physically alone, but the experienced social relationships and the low level of satisfaction in contrast to the expectation of optimal satisfaction from these relationships can be the basis of feeling lonely (Tamel & Atalay, 2018).

Although research on the problems of mobile phones shows an increase in the interest of teenage users of mobile phones. However, nomophobia research has been scarce (King et al., 2014). Therefore, by clarifying the importance of the variables involved in the incorrect use of this new and epidemic technology, it has become clear that this issue should be investigated more, especially in the adolescent group, and researches should try to clarify the relationship aspects of these variables. This research also examines the relationship between attachment styles and nomophobia and the mediating role of loneliness in adolescents. In fact, this research was about:

Do attachment styles affect nomophobia and can loneliness play a role as a mediating variable in this relationship?

Method
This research design was correlational and structural equation modeling. The research sample consisted of 500 working students studying in the second secondary course in the academic year 2020-2021, who were selected by online sampling method. Yıldırım and Correa's Nomophobia Questionnaire (2015), Collins and Reid's Adult Attachment Scale (1990) and DiTomaso et al.'s (2004) Loneliness Scale were used to measure the research variables. Data were analyzed with Pearson correlation coefficient and structural equation model.

Results
The findings showed that the direct paths of this research of avoidant and ambivalent attachment styles were significant except for the perceived secure attachment style on nomophobia. Also, the results of the modified confirmatory factor analysis show (P = 0.001, F = 0.626) and the results indicate a good fit of the measurement model with the data; and all observed variables had a factor load higher than 0.3. In the other part of the results related to the direct paths, attachment styles were significant on the feeling of loneliness. Also, all the indirect paths of attachment styles through the mediating role of loneliness on nomophobia were significant. Also, the findings show that attachment styles and feelings of loneliness can predict 54% of the changes in nomophobia. The coefficient of determination of the variable feeling of loneliness is equal to 38% in the moderate to strong range.

Conclusion
As mentioned, the aim of the present study was to predict nomophobia based on perceived attachment styles with the mediating role of loneliness in adolescents. The research method was descriptive and structural equation modeling.

The results showed that there is a significant relationship between attachment styles and perceived loneliness and nomophobia. Also, the results showed that the direct paths of this research were significant except for the perceived secure attachment style on nomophobia. Also, all the indirect paths of attachment styles through the mediating role of loneliness on nomophobia were significant. Therefore, the direct hypotheses except the main research hypotheses were confirmed. Also, all indirect (intermediate) hypotheses were confirmed.

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