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Identifying and Comparing the Profile of Psychopathology of University Students with Different Intensities of Nomophobia

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Abstract

The present study aimed to identifying and comparing the profile of psychopathology of university students with different intensities of nomophobia. The research methodology was descriptive-comparison. A sample of 323 people was selected among the students of Semnan University based on the cut-off point scores and was placed in three groups of severe, moderate, and mild nomophobia. The instruments included Symptom Checklist-Revised and Nomophobia Questionnaire. The results of MANOVA and Scheffe post hoc tests showed that in all 9 symptoms of SCL-90 the average score of people with severe nomophobia was higher than individuals with mild nomophobia. Similar results were obtained in groups with severe and moderate nomophobia, except for two symptoms: somatization and phobia. Considering the psychopathological profile of students with severe nomophobia, it was found that the severity of psychological damage in this group is significantly higher in the symptoms of paranoid thoughts, depression, interpersonal sensitivity, obsession, and psychosis, respectively.

Keywords: Nomophobia, psychopathological profile, smartphone

Introduction

Nomophobia, as an emerging psychological problem, is a side effect of people's interaction with communication technologies such as smartphones (Tams, et al., 2018). Evidence suggests that nomophobia is a serious risk factor for the well-being of individuals (Batacharya, et al., 2019) that needs to be studied from the perspective of psychopathology. However, due to differences in its nature, nomophobia has not yet been included in the Diagnostic and Statistical Manual of Mental Disorders (Catone, et al., 2020). This may be due to the lack of a comprehensive pathological profile of nomophobia. Studies that have systematically reviewed research in this area (such as Rosales-Huamani, et al., 2019) have identified three symptomatic factors for nomophobia: "anxiety", "obsessive behavior", and "panic." Some studies have also reported on the pathological profile of nomophobic individuals, the presence of generalized anxiety, panic, agoraphobia, depression, social phobia, obsessive-compulsive disorder, post-traumatic stress disorder (PTSD), and anorexia nervosa (King, et al., 2017; Kusco, et al., 2020). These studies have shortcomings in determining the psychopathological profile of nomophobia. For example, systematic reviews of the background cannot provide a complete picture of the harms of nomophobia. These researches also face shortcomings in terms of the number and method of determining harms. Therefore, considering these research gaps and the need to determine the pathological status of nomophobic individuals, and on the other hand, considering that students are the most at risk due to excessive use of smartphones (Yildiz Durak, 2018), the issue and this study aimed to identify and compare the profile of psychopathology of university students with different intensities of nomophobia

Method

This research was conducted using the descriptive-comparative research method. The research population included all undergraduate students of Semnan University in 2021. Using the available sampling method, 323 undergraduate students (188 girls and 135 boys) were selected. by announcing

the call on student social networks, people were asked to participate in the research. Based on this, 323 undergraduate students (188 girls and 135 boys) were selected, and based on the cut of points of the nomophobia questionnaire, subjects were divided into three nomophobic groups: severe (n = 68), moderate (n = 173) and mild (n = 72). Then, they were compared in terms of psychopathological symptoms.

Nomophobia Questionnaire (NMP-Q): The 20-items NMP-Q, with the answer based on a 7-point Likert scale from strongly disagree to strongly agree, developed by Yildirim and Correia (2015). Its concurrent validity with the " Mobile Phone Involvement Questionnaire (MPIQ) reported correlation of r = .71 and its reliability by calculating the Cronbach's alpha coefficient was α = .94

Symptom CheckList-90- Revised (SCL-90): This checklist consists of 90 items that assess 9 symptoms of psychological symptoms, including physical complaints, obsessive-compulsive disorder, sensitivity in interpersonal relationships, depression, anxiety, aggression, phobia, paranoid thoughts, and psychosis (Derogatis, et al., 1976). The items are scored on a 5-point Likert scale (from none to very high). Derogatis and Savitz (1999) reported internal consistency in the range of 0.77 to 0.90.

Results

Table 1 presents the descriptive indicators of the research variables separately for the groups.

Table 1- Mean and standard deviation of psychopathological symptoms by research groups

Groups / Symptoms	Severe nomophobia group		Moderate nomophobia group		Mild nomophobia group	
	Mean	Std. D	Mean	Std. D	Mean	Std. D
Somatization	16.57	8.39	13.09	9.41	7.92	6.45
Obsession	17.33	7.29	12.92	7.71	8.11	6. 42
Interpersonal sensitivity	16.30	6.53	10.13	6.64	6.35	5.58
Depression	23.70	10.76	16.05	10.58	10.77	8.68
Anxiety	15.36	6.94	10.87	8.18	5.19	7.15
Aggression	9.15	4.24	6.31	5.00	4.08	4.21
Phobia	7.45	5.77	4.83	5.64	2.14	4.62
Paranoid thoughts	11. 70	5.01	7.96	5.17	7.38	5.30
Psychosis	14.51	7.94	9.92	8.36	5.80	6. 12

The results of the MANOVA test showed a significant difference between groups in terms of the combination of 9 psychopathological symptoms (Wilks' $\lambda = 0.76$, $F = 2.89$, $p < 0.0001$). Analysis of variance (ANOVA) was used to examine the differences between groups in each of the 9 symptoms. The results (Table 2) showed a significant difference between the groups in terms of physical symptoms, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, aggression, phobia, paranoid thoughts, and psychosis.

Table 2- Results of ANCOVA to compare groups in psychopathological symptoms

Groups / Symptoms	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Somatization	1092.99	2	546.49	6.91	.001	.07
Obsession	1240.61	2	620.30	11.15	.0001	.11
Interpersonal sensitivity	1569.56	2	784.78	18.67	.0001	.17
Depression	2584.03	2	1292.02	12.01	.0001	.116
Anxiety	1504.49	2	752.248	13.17	.0001	.126

Aggression	389.01	2	194.50	8.80	.0001	.088
Phobia	411.85	2	205.93	7.03	.02	.071
Paranoid thoughts	406.23	2	203.11	7.63	.001	.077
Psychosis	1125.67	2	562.83	8.87	.0001	.088

The results of the Scheffe post hoc test revealed two groups of severe and mild nomophobia in physical (8.65), obsession (9.21), interpersonal sensitivity (9.57), depression (12.93), anxiety (10.17), aggression (07 5.), phobia (5.30), paranoid thoughts (4.31), and psychosis (8.71) symptoms were significantly (P<0.05) different from each other. The means in Table 1 revealed that the scores of the severe nomophobia group were higher in all symptoms. In the comparison between the two groups of severe and moderate nomophobia, it was found that the two groups in the symptoms of obsessive-compulsive disorder (4.41), interpersonal sensitivity (6.17), depression (7.64), anxiety (4.48), aggression (2.83), paranoid thoughts (3.73), and psychosis (4.59) were significantly different (P<0.05). The means in Table 1 indicate that the score of the severe nomophobia group was higher than the score of the moderate group.

According to Figure 1, the rate of psychopathology in all symptoms was higher for the severe nomophobia group but does not reach the level of the critical cut-off point of the scale (2.5), and the psychopathology profile was relatively similar in all three groups. In interpersonal sensitivity and then psychosis symptoms, the scores of the severe nomophobia group were more significantly different than the other two groups. The highest damage was observed in the paranoid thoughts symptom and the least damage was observed in the phobia symptoms.

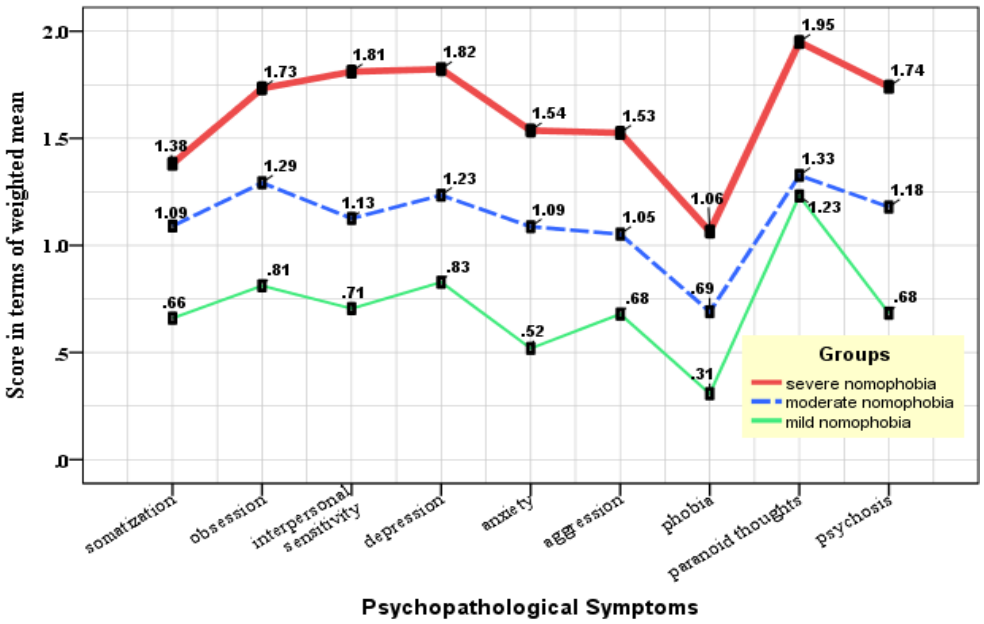

Figure 1- Psychopathological profile of groups with severe, moderate, and mild nomophobia

Discussion and Conclusion

The results of the present study clearly show the psychopathological aspect of nomophobia and confirm the view that severe nomophobia is typically associated with other mental and physical disorders (Batacharya, et al., 2019). The profile of the results of this study can help mental health practitioners to design interventions aimed at eliminating the problems of nomophobic people. The

present study was conducted only on one group of students, the available evidence, especially with the outbreak of the covid-19 pandemic, shows that both student groups and other groups are heavily involved in cyberspace, so it is recommended to repeat this research in other groups of users. This study is the first step in identifying the harmful aspects of nomophobia. It is suggested that other aspects of nomophobia psychopathology such as its relationship with personality disorders and the role of different therapeutic interventions in reducing nomophobia be investigated.

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Conflicts of interest

The authors have not any conflicting interests.