



Research Article

Investigation of the Relationship Between Mindfulness, Social Media Addiction and Psychological Resilience Levels in Nursing Students

Ayfer Öztürk^{1*}, Hüseyin Tolga Gazi², Ömer Faruk Koyunoğlu², Mehmet Furkan Öztekin², Zeynep Esen²

¹Psychiatry Nursing Department, Faculty of Health Sciences, Bartın University, Bartın, Turkey,

²Nursing Student Department of Nursing, Faculty of Health Sciences, Bartın University, Bartın, Turkey

*Correspondence to: Ayfer Öztürk, PhD, Associate Professor, Psychiatry Nursing Department, Faculty of Health Sciences, Bartın University, Agdaci Kampusu, Agdaci, Bartın, 74100, Turkey; E-mail: ayferozturk.83@yahoo.com

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Abstract

Objective: The aim of this study was to examine the relationship between mindfulness, social media addiction and resilience levels in nursing students.

Methods: The universe of this descriptive and cross-sectional study consisted of 276 students studying in the nursing department of a state university. The aim was to reach the entire universe without sampling, and the research was completed with 200 students who volunteered to participate in the research. The research data was collected between 30 January and 30 April 2023 through an online questionnaire. The study data were collected through the “Personal Information Form” and the “Short Psychological Resilience Scale”, “Mindfulness Scale” and “Social Media Addiction Scale”.

Results: The mean mindfulness score of the students was $64,645 \pm 16,153$, the mean psychological resilience score was $18,120 \pm 4,038$, and the mean social media addiction score was $76,615 \pm 21,390$. There was no significant relationship between the mean scores of psychological resilience, social media addiction and mindfulness ($P < 0.05$). On the other hand, scores on the social media addiction scale were higher among 2nd grade students and students who spent 7 or more hours on social media ($P < 0.05$). The psychological resilience scores of male students were higher than those of female students ($P < 0.05$). The psychological resilience scores of those who used social media for information purposes were higher than those who used social media for entertainment games, friends and communication with the social environment ($P < 0.001$). The mindfulness scores of the 1st, 2nd and 3rd year students were higher than those of the 4th year students.

Conclusion: As a result, no significant relationship was found between psychological resilience, mindfulness and social media addiction levels in this study. In further studies, it may be recommended to conduct studies with larger sample groups and to examine the mediating role of psychological resilience in social media addiction.

Keywords: mindfulness, resilience, social media, addiction, student

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1 INTRODUCTION

The university period is the time when individuals undergo psychological changes, gain independence and continue the process of gaining identity^[1]. University students face many difficulties and stresses during this period. They are affected by many factors such as fear of being alone, economic difficulties, getting used to dormitory life, job anxiety and separation from family. If university students are not equipped to cope with these difficulties, they will suffer psychologically and physically. One of the important factors that enables students to recover from challenging and stressful living conditions is psychological resilience^[2].

Psychological resilience is defined as an individual's ability to cope with challenging environmental conditions and negative situations^[3]. Studies have found that people with high levels of psychological resilience share common characteristics. Social competence, optimism, purposeful behaviour, strong and successful communication, problem solving, adaptive character, ability to build healthy relationships, sense of humour, faith and empathy skills. It has been shown that people with high levels of psychological resilience are better able to cope with stressful and negative situations and communicate well^[4]. On the other hand, there is a direct correlation between mindfulness and psychological resilience. People with high levels of mindfulness are found to have better psychological well-being^[5].

Mindfulness gives people feelings of forgiveness, love and compassion. For this reason, people with high levels of mindfulness suffer less from stressful and negative emotional states and increase their quality of life. Psychological resilience and mindfulness are also thought to be important for people working in professions that directly help people. The relationship between these two factors is particularly important for nursing students^[6]. In fact, individuals with sufficient self-awareness and psychological resilience may be more successful in helping others^[7,8]. Studies have shown that nursing students experience many sources of stress. They face sources of stress such as academic, personal and clinical stress. Some of these academic stressors are getting low grades in exams, heavy academic workload and intensive course load. Another source of stress is clinical practice. The sources of stress in clinical practice are lack of knowledge and skills, emotions when caring for patients, difficulties with the health care team and fear of making mistakes. Personal sources of stress are economic difficulties and friendship relationships. Nursing students reported that high clinical and academic

workloads had a negative impact on their personal and social lives. Students with high levels of psychological resilience and mindfulness can overcome difficulties, protect themselves from the harmful aspects of stress and achieve their goals. Nursing students should have high levels of mindfulness and psychological resilience. This is because they have the opportunity to work in most areas of society and therefore have a direct impact on society. They should have low error rates when treating, caring for, communicating with and informing patients. If they make mistakes, this can have undesirable consequences for society and the individual^[9].

Although there are studies on psychological resilience and mindfulness in the literature, there are few studies that examine the relationship between mindfulness and psychological resilience in nursing students. For example, Karataş and Camadan^[10] found in their study that the courses taken by nursing students in undergraduate programmes have a positive effect on mindfulness and psychological resilience as well as the acquisition of various knowledge and skills. Another conclusion of the study is that mindfulness has a significant and positive effect on psychological resilience. It is believed that emphasising the qualities of mindfulness and psychological resilience in the education of nursing students will create sensitivity in the students. Accordingly, it is estimated that undergraduate education has a positive effect on the high level of these characteristics in nursing students^[10].

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The vast majority of students see social media as an integral part of their lives, spend a significant amount of time on social media, and see social media as a means of communicating and interacting with the world around

them. Studies emphasise the importance of controlled use of social media by young people, who now make up a significant proportion of the population^[11]. Unrealistic expectations created by social media can also lead to feelings of self-consciousness, low self-esteem and perfectionism, which can manifest as anxiety disorders in young people^[12]. Excessive internet use reduces time spent socialising and has a negative effect on the self, leading to loneliness and loneliness related depression and reduced psychological resilience. Although social media has a positive effect on young people in terms of teaching social skills, strengthening relationships and being fun, continuous and excessive use of social media platforms is detrimental to the mental health and psychological resilience of young users^[13]. Research has shown that psychological resilience and social media addiction are negatively correlated among university students. Given the high prevalence of internet use, social media addicted university students are the most vulnerable individuals in terms of their psychosocial status. For this reason, it is very important to study the issue, especially to identify the groups at risk by conducting studies on young people and to determine the measures to be taken^[14].

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Mindfulness, which is effective in the development of both physical and mental health, increases psychological well-being, psychological resilience and life satisfaction by enabling individuals to regulate their emotional state, be

satisfied with their relationships and cope more effectively with problems that arise^[15]. People with higher levels of mindfulness are more successful at staying in the moment and controlling their behaviour because they are more aware of their own feelings and thoughts than people with lower levels of mindfulness. Therefore, they can use social media in a more controlled way according to their individual needs^[16]. They are more positive about the duration and frequency of social media use and can manage it according to their own needs. Mindfulness exercises can be used effectively to reduce social media habits that have become routine without realising it in leisure time^[17].

As the relationship between mindfulness and social media addiction has become more important in recent years, studies have been reviewed. A review of the studies shows that they are limited. In the study conducted by Cankurtaran and Şakiroğlu^[18] on university students, the mediating role of mindfulness in the relationship between emotional intelligence and the increase in social media use was examined. As a result of the analysis, mindfulness was found to have a full mediating role in the relationship between emotional intelligence and social media addiction. Mindfulness was also found to mediate well-being and self-control, which are sub-dimensions of emotional intelligence. The results of the study showed that even if university students' emotional intelligence levels are low, if their mindfulness levels are high, their risk of social media addiction is low^[19]. In another study, in a dissertation study conducted with undergraduate and graduate students studying in Istanbul in the spring semester of the 2018-2019 academic year, data was collected by reaching 709 individuals and the relationship between social media addiction, psychological well-being, mindfulness and intolerance of uncertainty variables was examined. According to the results of the study, it was found that with high levels of mindfulness and low levels of inhibitory anxiety, social media addiction is reduced to lower levels and psychological well-being can be increased^[20].

Although there are many studies on social media addiction in the literature, there is no study that examines the relationship between social media addiction, mindfulness and psychological resilience in nursing students. It was hypothesised that social media addiction, which we encounter constantly today, may be related to an individual's level of mindfulness and psychological resilience. It is believed that this research will contribute to the literature and can help institutions and organisations working to prevent addiction in the intervention process in cases where social media addiction is identified.

Research hypotheses: Hypothesis 1: There is a relationship between mindfulness and levels of social media addiction in nursing students; Hypothesis 2: There is a relationship between mindfulness and psychological resilience in nursing

students; Hypothesis 3: There is a relationship between psychological resilience and levels of social media addiction among student nurses; Hypothesis 4: Nursing students' levels of mindfulness differ according to their socio-demographic characteristics; Hypothesis 5: Nursing students' levels of psychological resilience differ according to their socio-demographic characteristics; Hypothesis 6: Nursing students' levels of social media addiction will differ according to their socio-demographic characteristics.

2 MATERIALS AND METHODS

2.1 Design and Sample

The aim of this descriptive cross-sectional study was to examine the relationship between mindfulness, social media addiction and psychological resilience in nursing students. The population of this study consisted of a total of 276 students studying in the nursing department of a state university. There was no sampling in the study and all students studying in the nursing department were included in the study and 200 students were reached. According to the known sample calculation of the population, 196 students participated in the study with a margin of error of 5% and a confidence level of 99%, but the study was completed with 200 students.

2.2 Data Collection

The data for the study were collected online. Students in the sample were informed online about the purpose of the study, the confidentiality of the data to be collected and that it would not be used in any way outside the study, so they were encouraged to provide accurate information. In addition, students were not asked for their identity information in order to provide accurate and reliable information and to increase reliability. The purpose of the study was written at the beginning of the form and two options were given as "I agree or disagree to participate in the study" and those who agreed were able to see the other survey questions.

2.3 Data Collection Tools

2.3.1 Introductory Information Form

In the introductory information form prepared by the researcher, which aimed to obtain personal information about the participants, questions were asked to obtain personal information such as gender, age, class, longest place of residence, mother's level of education, father's level of education, income level, whether there was a psychiatric disorder, how many hours per day they spent on social media, the most frequently used tool to access social media, the purpose of social media use and the most frequently used social media tool. This data was used to examine the relationship between the study and the dependent variables.

2.3.2 Social Media Addiction Scale

The scale developed by Şahin^[21] has 4 sub-dimensions:

virtual tolerance, virtual communication, virtual problem and virtual information. The internal consistency coefficients of the sub-dimensions of the scale vary between 0.81 and 0.86. The scale is 5-point Likert type and consists of 29 items. Items 1-5 are virtual tolerance, items 6-14 are virtual communication, items 15-23 are virtual problem and items 24-29 are virtual information. The lowest score is 29 and the highest score is 145. The higher the score, the higher the level of social media addiction. The response distribution was formed as 1 = not at all suitable for me, 2 = not suitable for me, 3 = I am undecided, 4 = suitable for me, 5 = very suitable for me^[21]. The Cronbach alpha value of the developed scale is 0.92. In this study, the reliability of the scale was found to be high with a Cronbach's alpha of 0.92.

2.3.3 Brief Psychological Resilience Scale

The scale was developed by Smith et al.^[22] and adapted into Turkish by Doğan^[23] to measure the psychological resilience of individuals. The scale is a 5-point Likert-type, 6-item self-report measure. After translating the reverse-coded items of the scale, high scores indicate high psychological resilience. The development of the scale and the validity and reliability studies were carried out on four different study groups. Accordingly, the first two groups consisted of university students and the next two groups consisted of heart patients and fibromyalgia patients. The reliability of the scale was calculated using internal consistency and test-retest methods. The internal consistency reliability coefficient was between 0.80 and 0.91. The test-retest reliability coefficient was between 0.62 and 0.69. In this study, the reliability of the Brief Psychological Resilience scale was found to be high, with a Cronbach's alpha of 0.77.

2.3.4 Mindfulness Scale

The scale, developed by Brown and Ryan^[24], measures individual differences in the frequency of mindfulness states and the tendency to focus on and be aware of momentary experiences in daily life. The BIFQ consists of 15 items and is a 6-point Likert scale. The scale is answered on a scale from "almost always" to "almost never". High scores on the scale indicate high levels of mindfulness. The scale was adapted into Turkish by Özyeşil et al.^[25]. The Cronbach alpha internal consistency coefficient of the scale was 0.80 and the test-retest correlation was 0.86. In this study, the reliability of the scale was calculated as Cronbach's Alpha 0.95.

2.4 Ethical Approval

Ethical approval (Date: 18.01.2023 No: 2022-SBB-0679) was obtained from Bartın University, and permission was obtained from the dean of the faculty where the research would be conducted. In addition, written permission was obtained by e-mail from the owners of the scales used in the study.

Table 1. Skewness and Kurtosis Values of the Scales

Scales	Kurtosis	Skewness
Social media addiction scale total	0.318	0.331
Virtual tolerance subscale	-0.641	0.221
Virtual communication subscale	0.382	0.495
Virtual problem subscale	0.504	0.648
Virtual information subscale	-0.537	-0.272
Psychological resilience scale total	1.291	-0.325
Mindfulness scale total	-0.025	-0.971

2.5 Statistical Analysis

The data obtained in the study were analysed in a computer environment using the SPSS 22.0 statistical programme. Frequency and percentage analyses were used to determine the descriptive characteristics of the students who participated in the study. Kurtosis and skewness values were analysed to determine whether the research variables were normally distributed. In the relevant literature, the results of kurtosis and skewness values of variables between +1.5 and -1.5^[26], +2.0 and -2.0^[27] are accepted as normal distribution.

The variables were found to be normally distributed (Table 1). Parametric methods were used to analyse the data. Pearson correlation and linear regression analyses were used to examine the relationships between the dimensions that determined the students' scale levels. The correlation coefficients (*r*) were evaluated as 0.00-0.25 very low; 0.26-0.49 low; 0.50-0.69 medium; 0.70-0.89 high; 0.90-1.00 very high^[28]. Independent groups t-test, one-way analysis of variance (ANOVA) and post hoc analysis (Tukey, LSD) were used to examine the differences in scale levels according to the descriptive characteristics of the students. Cohen(*d*) and eta-squared (η^2) coefficients were used to calculate effect sizes. The effect size indicates whether the difference between the groups is large enough to be considered significant. Cohen's value is considered as 0.2: small, 0.5: medium, 0.8: large, and Eta square value is considered as 0.01: small, 0.06: medium, 0.14: large^[28].

3 RESULTS

3.1 Descriptive Characteristics of Students

The results of the descriptive characteristics of the students are presented in Table 2. The table shows that 44 (22.0%) of the students were male and 156 (78.0%) were female. According to their place of residence, 57 (28.5%) of the students were from the city, 57 (28.5%) from the district, 43 (21.5%) from the village and 43 (21.5%) from the town. According to their mothers' level of education, 83 (41.5%) had primary education, 39 (19.5%) had high school education, 9 (4.5%) could read and write, 13 (6.5%) were illiterate, 41 (20.5%) had secondary education and 15 (7.5%) had university education. According to the educational level of the father, 44 (22.0%) had primary education, 78 (39.0%) had secondary education, 4 (2.0%)

could read and write, 3 (1.5%) were illiterate, 39 (19.5%) had secondary education and 32 (16.0%) had a university degree. According to the perceived income status of the students, 18 (9.0%) were low, 177 (88.5%) were middle and 5 (2.5%) were high. Regarding the presence of a diagnosis of mental disorder, 8 (4.0%) of the students answered yes and 192 (96.0%) answered no. According to the hours spent daily on social media, 99 (49.5%) of the students spent between 1-3 hours, 86 (43.0%) between 4-6 hours, 15 (7.5%) 7 or more hours. According to the means of access to social media, 5 (2.5%) of the students used computers, 1 (0.5%) used tablets and 194 (97.0%) used phones. According to the purpose of using social media, 125 (62.5%) of the students used social media for communicating with family, friends and other social environment, 21 (10.5%) for getting information, 38 (19.0%) for entertainment and games, 8 (4.0%) for getting news and 8 (4.0%) for personal sharing (sharing personal photos, videos, ideas). According to the most used social media platform: 1 (0.5%) facebook, 1 (0.5%) google, 113 (56.5%) instagram, 2 (1.0%) snapchat, 3 (1.5%) twitter, 66 (33.0%) whatsapp, 14 (7.0%) youtube. The mean "age" of the students was 20.860±2.149 (min = 18; max = 34) (Table 2).

3.2 Mean Scores of Social Media Addiction, Psychological Resilience and Mindfulness Scales

The arithmetic mean, standard deviation, and minimum-maximum scores of the students' mindfulness, psychological resilience, and social media addiction scale scores are presented in Table 3. According to the table, the mean total score of "mindfulness" of the students was 64.645±16.153 (min = 23; max = 90). The mean total score of "psychological resilience" was 18.120±4.038 (min = 6; max = 30). The mean total score of "social media addiction" was 76.615±21.390 (min = 29; max = 145), "virtual tolerance" was 14.125±5.102 (min = 5; max = 25), "virtual communication" was 22.915±7.380 (min = 9; max = 45), "virtual problem" was 20.055±7.350 (min = 9; max = 45), "virtual information" was 19.520±6.008 (min = 6; max = 30) (Table 3).

3.3 Correlation Analysis Results Between Social Media Addiction, Psychological Resilience and Mindfulness Scores

The relationships between students' social media addiction, psychological resilience and mindfulness levels were analysed using correlation analysis. The results of the analysis are presented in Table 4. According to the table, when analysing the correlation analysis, no significant correlation was found between social media addiction, mindfulness and psychological resilience scale scores ($P<0.05$).

3.4 Comparison of Social Media Addiction, Mindfulness and Resilience Scale Scores According to Descriptive Characteristics

The results of the analysis conducted to examine the differentiation of scale scores according to descriptive

Table 2. Distribution of Students According to Descriptive Characteristics

Groups	Frequency (n)	Percentage (%)
Gender		
Male	44	22.0
Female	156	78.0
The longest place to live		
Metropolitan	57	28.5
District	57	28.5
Village	43	21.5
City	43	21.5
Mother's education status		
Primary school	83	41.5
High schoolz	39	19.5
Can read and write	9	4.5
Illiterate	13	6.5
Secondary school	41	20.5
University	15	7.5
Father's education status		
Primary school	44	22.0
High school	78	39.0
Can read and write	4	2.0
Illiterate	3	1.5
Secondary school	39	19.5
University	32	16.0
Perceived income status		
Low	18	9.0
Medium	177	88.5
High	5	2.5
Diagnosis of psychological disorder		
Yes	8	4.0
None	192	96.0
Daily hours spent on social media		
Between 1-3 hours	99	49.5
Between 4-6 saat arası	86	43.0
7 and more	15	7.5
Social media access tools		
Computer	5	2.5
Tablet	1	0.5
Telephone	194	97.0
Purpose of social media use		
Communication with family, friends and other social environment	125	62.5
Obtaining information	21	10.5
Entertainment and games	38	19.0
Obtaining news	8	4.0
Personal sharing (sharing personal photos, videos, ideas)	8	4.0
Most frequently used social media platform		
Facebook	1	0.5
Google	1	0.5
Instagram	113	56.5

Snapchat	2	1.0
Twitter	3	1.5
Whatsapp	66	33.0
Youtube	14	7.0
	Mean	SD
Age	20.860	2.149

Table 3. Social Media Addiction, Psychological Resilience and Mindfulness Score Averages

Scales and Subscales	N	Mean	SD	Min.	Maks.	Alpha
Mindfulness scale total	200	64.645	16.153	23.000	90.000	0.954
Psychological resilience scale total	200	18.120	4.038	6.000	30.000	0.774
Social media addiction scale total	200	76.615	21.390	29.000	145.000	0.924
Virtual tolerance subscale	200	14.125	5.102	5.000	25.000	0.777
Virtual communication subscale	200	22.915	7.380	9.000	45.000	0.808
Virtual problem subscale	200	20.055	7.350	9.000	45.000	0.868
Virtual information subscale	200	19.520	6.008	6.000	30.000	0.802

Table 4. Correlation Analysis Between Social Media Addiction, Psychological Resilience and Mindfulness Scores

		Social Media Addiction Scale Total	Virtual Tolerance Subscale	Virtual Commu- nication Subscale	Virtual Prob- lem Subscale	Virtual Information Subscale	Psychological Resilience Scale Total	Mindful- ness Scale Total
Social media addiction scale total	<i>r</i>	1.000						
	<i>p</i>	0.000						
Virtual tolerance subscale	<i>r</i>	0.813**	1.000					
	<i>p</i>	0.000	0.000					
Virtual communication subscale	<i>r</i>	0.896**	0.666**	1.000				
	<i>p</i>	0.000	0.000	0.000				
Virtual problem subscale	<i>r</i>	0.886**	0.623**	0.794**	1.000			
	<i>p</i>	0.000	0.000	0.000	0.000			
Virtual information subscale	<i>r</i>	0.685**	0.466**	0.425**	0.426**	1.000		
	<i>p</i>	0.000	0.000	0.000	0.000	0.000		
Psychological resilience scale total	<i>r</i>	-0.122	-0.122	-0.064	-0.172*	-0.042	1.000	
	<i>p</i>	0.085	0.084	0.367	0.015	0.555	0.000	
Mindfulness scale total	<i>r</i>	-0.101	-0.113	-0.115	-0.071	-0.034	0.068	1.000
	<i>p</i>	0.156	0.111	0.104	0.321	0.628	0.337	0.000

Notes: * $P<0.05$; ** $P<0.01$; Pearson Correlation Analysis.

characteristics are presented in Table 5. According to the table, the total scores of students' social media addiction do not differ significantly according to gender, the place where they spend the longest part of their lives, mother's and father's educational level, the presence of a diagnosis of psychological disorder and the purpose of using social media ($P>0.05$).

The total score of students' social media addiction shows a significant difference according to class ($F=3.322$; $P=0.021<0.05$; $\eta^2=0.048$). The reason for the difference is that the total social media addiction scores of 2nd graders are higher than the total social media addiction scores of 1st graders ($P<0.05$). 2nd graders' total social media addiction

scores are higher than 3rd graders' total social media addiction scores ($P<0.05$).

Students' total social media addiction scores show a significant difference according to the hours spent on social media per day ($F=15.615$; $P=0<0.05$; $\eta^2=0.137$). The reason for the difference is that the total social media addiction scores of those who spend 4-6 hours are higher than the total social media addiction scores of those who spend 1-3 hours ($P<0.05$). Those who spent 7 hours or more on social media addiction had higher total social media addiction scores than those who spent 1-3h on social media addiction ($P<0.05$). The total scores of those who spent 7 or more hours on social media were higher than the

Table 5. Different of Social Media, Psychological Resilience and Mindfulness Scores According to Descriptive Characteristics

Demographic Characteristics	n	Social Media Addiction Scale Total	Psychological Resilience Scale Total	Mindfulness Scale Total
Gender		Mean±SD	Mean±SD	Mean±SD
Male	44	74.659±20.359	19.727±4.139	64.386±18.425
Female	156	77.167±21.704	17.667±3.904	64.718±15.517
t=		-0.686	3.051	-0.120
P=		0.494	0.003	0.905
Class		Mean±SD	Mean±SD	Mean±SD
1	71	75.606±20.799	17.521±3.861	69.338±11.944
2	41	84.073±21.941	17.683±4.275	66.146±14.475
3	39	69.436±22.786	19.103±3.485	70.923±15.189
4	49	77.551±19.027	18.571±4.397	51.592±16.613
F=		3.322	1.671	18.674
P=		0.021	0.175	0.000
PostHoc=		2>1, 2>3 (P<0.05)		1>4, 2>4, 3>4 (P<0.05)
The longest place to live		Mean±SD	Mean±SD	Mean±SD
Village	43	74.954±24.232	18.233±4.854	67.047±14.034
District	57	76.825±22.902	17.667±3.481	62.632±16.575
City	43	76.814±19.881	18.977±3.808	63.442±17.414
Metropolitan	57	77.509±19.015	17.842±4.052	65.754±16.322
F=		0.121	0.986	0.779
P=		0.948	0.401	0.507
Mother's education status		Mean±SD	Mean±SD	Mean±SD
Primary school and below	105	77.000±21.030	17.657±4.437	63.381±16.470
Middle school	41	74.707±23.472	18.756±3.974	65.512±15.846
High school	39	77.051±20.105	18.487±2.846	67.154±15.099
University	15	78.000±23.084	18.667±3.867	64.600±18.051
F=		0.145	0.998	0.564
P=		0.933	0.395	0.640
Father's education status		Mean±SD	Mean±SD	Mean±SD
Primary school and below	51	75.177±21.736	18.000±4.094	66.863±16.410
Middle school	39	77.513±21.521	18.974±3.609	63.128±15.422
High school	78	76.244±21.114	17.744±4.021	64.769±15.069
University	32	78.719±22.152	18.188±4.497	62.656±19.235
F=		0.208	0.824	0.595
P=		0.891	0.482	0.619
Diagnosis of psychological disorder		Mean±SD	Mean±SD	Mean±SD
Yes	8	67.750±26.125	14.125±6.058	58.375±21.078
None	192	76.984±21.172	18.287±3.866	64.906±15.933
t=		-1.198	-2.909	-1.121
P=		0.232	0.094	0.264
Daily hours spent on social media		Mean±SD	Mean±SD	Mean±SD
Between 1-3 hours	99	71.677±18.085	18.343±4.307	62.808±16.482
Between 4-6 saat arası	86	77.814±21.637	17.861±3.947	66.407±15.554
7 and more	15	102.333±21.950	18.133±2.560	66.667±17.066
F=		15.615	0.327	1.273
P=		0.000	0.721	0.282
PostHoc=		2>1, 3>1, 3>2 (P<0.05)		3>1, 3>2 (P<0.05)

Purpose of social media use		Mean±SD	Mean±SD	Mean±SD
Communication with family, friends and other social environment	125	78.216±21.775	18.096±3.838	63.864±17.147
Obtaining information	21	66.381±18.145	21.143±4.151	64.714±15.363
Entertainment and games	38	76.737±18.608	16.474±4.215	67.079±13.859
Others	16	77.250±26.244	18.250±2.840	64.875±14.913
F=		1.865	6.539	0.383
P=		0.137	0.000	0.766
PostHoc=		2>1, 1>3, 2>3, 2>4 ($P<0.05$)		

Notes: F: Anova Test; t: Independent Groups T-Test; PostHoc: Tukey, LSD. Notes: n: Number of examinees; Mean: Mean of scores; SD: Standard deviation of scores.

total scores of those who spent 4-6 hours on social media addiction ($P<0.05$).

Students' total psychological resilience scores did not differ significantly by grade, place of residence, parental education level, presence of a mental health diagnosis, or hours spent per day on social media ($P>0.05$). Total psychological resilience scores for males ($x=19.727$) were higher than total psychological resilience scores for females ($x=17.667$) ($t=3.051$; $P=0.003<0.05$; $d=0.521$; $\eta^2=0.045$).

The students' psychological resilience total scores show a significant difference according to the purpose of using social media ($F=6.539$; $P=0<0.05$; $\eta^2=0.091$). The reason for the difference is that the psychological resilience total scores of those whose purpose of using social media is to get information are higher than the psychological resilience total scores of those whose purpose of using social media is to communicate with family, friends and other social environment ($P<0.05$). The total psychological resilience scores of those whose purpose of using social media is to communicate with family, friends and other social environment are higher than the total psychological resilience scores of those whose purpose of using social media is to play entertainment ($P<0.05$). The psychological resilience total scores of those whose purpose is to obtain information are higher than the psychological resilience total scores of those whose purpose is to play recreation ($P<0.05$). The total psychological resilience scores of those whose purpose is to obtain information are higher than the total psychological resilience scores of those whose purpose is other ($P<0.05$).

Students' total mindfulness scores do not differ significantly according to gender, place of residence, parents' educational level, presence of a diagnosis of mental disorder, hours spent on social media daily, and purpose of social media use ($P>0.05$).

Students' overall mindfulness scores differed significantly by grade ($F=18.674$; $P=0<0.05$; $\eta^2=0.222$). The reason for the difference is that the total mindfulness scores of 1st graders are higher than the total mindfulness scores of 4th graders ($P<0.05$). The total mindfulness scores

of the 2nd graders were higher than the total mindfulness scores of the 4th graders ($P<0.05$). Total mindfulness scores of 3rd graders are higher than total mindfulness scores of 4th graders ($P<0.05$).

4 DISCUSSION

The mean mindfulness scale score of the nursing students participating in the study was calculated to be 64.645 ± 16.153 . Considering the upper and lower score limits of the MBS, it can be assessed that the nursing students who were the sample of our study have a high level of mindfulness. In a study conducted at Pamukkale University, the mean score of 332 nursing students on the BFÖ was 60.41 ± 11.43 ^[29]. Dubert et al.^[30] found that the mean mindfulness score was 52.2 ± 0.73 in their study of 80 nursing students, and Konan and Yılmaz^[6] found that the level of mindfulness of students was at a moderate level in their study of university students. Our research findings support similar research findings^[31]. It is extremely important for nursing students, who are the health professionals of the future, to have a good level of mindfulness, which is an effective factor in coping with life stress, both in their personal and professional lives.

When differentiating mindfulness scores by descriptive characteristics, it was found that there was no significant relationship between the mean mindfulness scale scores of nursing students and the variable of gender. There are studies in the literature that support this research finding. In the study conducted by Serdar et al.^[32] in the Department of Physical Education and Sports, it was found that the mindfulness levels of the students were not statistically significantly different according to the gender variable. In the study conducted by Ahmadi et al.^[33] on 273 university students to determine the level of mindfulness and the factors affecting it, it was found that there was no significant relationship between the level of mindfulness and gender. The results of this study are in line with the findings of the studies that examined the relationship between the gender variable and the level of mindfulness.

The total mindfulness scores of the students show a significant difference according to the class. In the study of Karataş and Camadan^[10], the mindfulness level of

nursing 1st grade students was found to be higher than other grades. When the 4th grade students with the lowest level of mindfulness are compared with the other grades, it is thought that 4th grade students experience more intense factors such as exam anxiety, stress, the process of getting used to the unfamiliar hospital environment, and communicating with patients, physicians, nurses and other health personnel in the hospital. Another reason may be that 4th grade students are in the preparation period for the exam to be appointed, the stress of graduation and the anxiety of finding a job are effective.

It was found that the total mindfulness scores of the nursing students did not differ significantly according to where they had lived the longest, their mother's level of education, their father's level of education, the presence of a diagnosis of mental disorder, the number of hours they spent on social media each day, and the purpose of their social media use.

The mean score of the nursing students' responses to the psychological resilience scale was calculated as 18.120 ± 4.038 (min=6; max=30). This shows that the psychological resilience of the students is at a medium level. In a study conducted at Atatürk University Faculty of Nursing, it was found that the psychological resilience levels of the nursing students participating in the study were good^[2]. In another study, the mean total score of psychological resilience of 112 nursing students studying at the Faculty of Nursing was 19.32 ± 4.27 , which was at the "medium" level^[34]. There are other studies that support this research result^[1,35]. It can be stated that the mean total score of the psychological resilience scale of the nursing students participating in these studies and the mean total score of the psychological resilience scale of the nursing students in our study are similar. It is assumed that the undergraduate education they received had a positive effect on the average level of psychological resilience of the students.

When the differentiation of psychological resilience scores according to descriptive characteristics was examined, the mean psychological resilience scale score of nursing students showed a significant difference according to the gender variable. As a result of this study, it was found that the psychological resilience level of male nursing students was higher than that of female nursing students. When reviewing the relevant literature, there are studies that support this research finding^[36,37]. It can be said that the result obtained is due to the fact that the participants who make up the data group of the study were brought up in a traditional family structure, and as a result of this situation, male participants take on more responsibilities in the family and therefore have to cope with stressful life events more and develop problem-solving skills^[37]. In addition, the fact that women are more emotional than men due to their conception, as well as the difficulties of university education

and its impact on their lives, may have contributed to this difference. Factors such as social support, encouragement and support in the development of psychological resilience are linked to social orientations such as the fact that boys in particular do not show weakness, have the least need to ask for help or refuse help^[38]. As a result of this perspective, which is displayed in mutual support at home, at school and in social conditions, it is an inevitable consequence that males have higher levels of psychological resilience^[39]. On the other hand, when reviewing the literature, it is noteworthy that different results have been obtained regarding the level of psychological resilience of female and male participants. For example, Gündas and Koçak's study^[40] found that the psychological resilience levels of female participants were higher than those of male participants^[40].

In a study with university students as the study group, it was observed that the purposes of using social media to support personal development, such as accessing and sharing information, remained at a lower level^[41]. Similarly, in our study, the number of students using social media for information purposes was lower. However, the overall scores of students' psychological resilience show a significant difference according to the purpose of social media use. The psychological resilience of students who used social media for information was found to be higher than those who used social media for communication, games and entertainment. This situation suggests that nursing students achieve professional satisfaction when they conduct research and obtain information, and this situation affects their psychological resilience level.

There were no significant differences in the psychological resilience levels of nursing students with regard to the variables of class, place of residence, mother's and father's level of education, and hours spent per day on social media.

The mean social media addiction scale score of the nursing students participating in the study was calculated as 76.615 ± 21.390 (min=29, max=145). Taking into account the upper and lower score limits, it can be seen that the level of social media addiction of the nursing students who made up the sample of our study is above average. In another study using the same measurement tool, Eşer et al.^[42] found the level of social media addiction among nursing students to be moderate. In another study conducted by Silva et al.^[43] among medical students, social media addiction was found to be moderate. In a study of 216 students studying in the Department of Nursing at the University of Health Sciences, the total mean score of students' social media addiction was 95.14 ± 27.39 and was found to be above average^[44]. In a study of 804 students at Manisa Celal Bayar University, Faculty of Health Sciences, Department of Nursing, the mean total score of students' social media addiction was

88.9±29.3^[45]. The mean social media addiction score of nursing students at Selçuk University Faculty of Nursing who agreed to participate in the study was 70.37±20.80^[46]. In a study conducted by Yaman et al.^[15] on nursing students using a different scale, the level of social media addiction among students was found to be moderate. The results of the studies on this topic support the findings of this study.

When differentiating the social media addiction scores according to descriptive characteristics, no significant difference was found between the mean social media addiction scores of nursing students according to the gender variable. Students actively use social media regardless of gender Aktan^[47] and Baz^[48] found that the level of social media addiction did not differ according to gender in their studies on university students. Koçak^[49] defines the reason why the social media addiction of university students does not differ by gender as being away from their families or communicating with family or friends due to online education, which may have led them to use social media more for educational purposes^[49].

Students' mean scores on the social media addiction scale vary significantly according to the amount of time they spend on social media. Those who spend 7h or more on social media have the highest level of social media addiction. It is assumed that the hours spent on social media increase for reasons such as communication and information gathering in theoretical and practical courses or in daily life. In Aktan's^[47] study, it was found that university students mostly used social media for more than five hours and it was reported that social media addiction increased as the duration of social media use increased. Duman's^[50] study reported that as the duration of social media use increased, so did social media addiction. These findings in the literature are similar to the findings of this study.

Nursing students' total mean scores for social media addiction show a significant difference according to class. The mean score of social media addiction for 2nd year nursing students was found to be significantly higher than the other years. The reason for this may be that they are currently being educated online, it has become a little more difficult for them to access the necessary theoretical / practical information, the intensity of research and interactive homework as well as the needs and demands for communication may have caused this significant difference. Reviewing the literature, İnce and Koçak's^[49] study found that university students use social media mainly for entertainment, information, research and communication with friends.

In the study, students' mean scores on the Social Media Addiction Scale showed a significant difference according to the purpose of social media use. It was found that students mainly use social media to communicate

with family, friends and other social circles. It is thought that students use the communication dimension of social media more for reasons such as feeling lonely, needing social support, staying away from family, making new friends and virtual friends. The length of time students spend on social media is increasing for reasons such as the desire to follow developments in social media, to maintain communication with friends, to spend time and to follow the agenda. At the same time, nursing students are thought to use social media to look up the meaning of medical terms, update their professional knowledge and research drug information. In the study conducted by Korkmaz et al.^[51] on nurses, it was found that nurses used social media mainly for communication. Similarly, in this study, nursing students were found to use social media for communication purposes. Initiatives such as controlling the duration of social media use to reduce the time students spend on social media, ensuring that they can use social media for effective and useful purposes, and organising training to improve safe internet / social media use and communication skills can help reduce the risk of social media addiction.

There was no significant difference in the mean scores of the students according to the place where they spent the longest part of their lives and the educational status of their mothers and fathers.

Another point of interest in this study is to examine the relationship between students' levels of mindfulness, psychological resilience and social media addiction. No significant difference was found between the levels of mindfulness and social media addiction among nursing students. In contrast to our findings, Yaman et al.^[15] found that nursing students with high levels of mindfulness had low levels of social media addiction. Another study examining the relationship between mindfulness and social media addiction found a significant negative difference between mindfulness and social media addiction^[52]. In a study conducted by Poon and Jiang^[53], they explained that people with low levels of mindfulness are more attached to social media when they receive attention on social media, and revealed that there is a significant negative relationship between social media addiction and mindfulness. A review of these studies in the literature revealed that there were no studies that supported the findings of our research. Given the limited sample size of our research, it is recommended that studies with larger sample sizes are conducted at other universities.

Another important finding of this study was that no significant difference was found between levels of mindfulness and psychological resilience in nursing students. The literature review found findings that did not overlap with the findings of our study. In a study conducted with university students, Weinstein et al.^[54] concluded that mindfulness has a positive effect on coping with stress and

that there is a positive relationship between mindfulness and psychological well-being. In another study, Bowlin and Baer^[55] found a positive relationship between mindfulness and psychological resilience. McGillivray and Pidgeon^[56] found a significant and positive association between psychological resilience and mindfulness. In these studies that we reviewed in the literature, we found that there were studies that did not support the findings of our research.

Another issue addressed in this study is the examination of the relationship between social media addiction and psychological resilience. When examining the relationship between the level of social media addiction and the level of psychological resilience of the nursing students participating in the study, no significant relationship was found. A review of studies suggests that there is a negative relationship between psychological resilience and social media addiction^[57]. Although our research does not support similar research findings, the reason for this is that there are many other factors that may be related to social media addiction and psychological resilience. For example, variables such as social support, stress levels and self-esteem may have an effect on both psychological resilience and social media addiction. If these factors are not taken into account, it may be difficult to determine the relationship between the two. For this reason, studies can be conducted that assess other factors that may be related to social media addiction and the mediating role of psychological resilience in this relationship.

4.1 Study Limitations

There are some limitations that should be taken into account when considering the results of the study. Some of these limitations are that the data were collected in an online environment, the results cannot be generalised to all nursing students because the study was only conducted on nursing students at the Faculty of Health Sciences of a state university, and the results were obtained using self-report scales. It may be appropriate to replicate the current study in larger sample groups, including nursing students from other universities. There are some limitations that should be taken into account when considering the results of the study. Some of these limitations are that the data were collected in an online environment, the results cannot be generalised to all nursing students because the study was only conducted on nursing students at the Faculty of Health Sciences at a state university, and the results were obtained using self-report scales. It may be appropriate to replicate the current study in larger sample groups, including nursing students from other universities.

5 CONCLUSION

As a result, this study did not find a significant relationship between psychological resilience, mindfulness and levels of social media addiction. In future studies, it may be recommended to conduct studies with larger sample

groups and to examine the mediating role of psychological resilience in the relationship between mindfulness and social media addiction. In addition, the levels of mindfulness, psychological resilience and social media addiction among nursing students are above average.

The level of psychological resilience differed according to the purpose of using social media. It was found that those with high levels of psychological resilience used social media mostly for information purposes, while those with high levels of social media addiction used it mostly for communication purposes. It is important for the development of students to implement interventions aimed at reducing their levels of social media addiction and interventions aimed at increasing their levels of psychological resilience. In line with these findings, it is important to ensure that nursing students use social media tools for effective and useful purposes. To this end, training can be organised for nursing students on how to use social media consciously and effectively. It is recommended that training on “time planning” be organised to reduce the time spent on social media. Psychological counselling and guidance committees of nursing departments, academic counsellors and psychological counselling and guidance centres in universities can play an active role in this regard.

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Conflicts of Interest

The authors declared no conflict of interest.

Ethics Statement

This study (Date: 18.01.2023 No. 2022-SBB-0679) was obtained from Bartın University and permission was obtained from the dean of the faculty where the research would be conducted. In addition, written permission was obtained from the owners of the scales used in the study via e-mail.

Author Contribution

Öztürk A, Hüseyin TG, Ömer FK, Öztekin MF, Esen Z were responsible for conceptualization. Öztürk A, Hüseyin TG, Ömer FK, Öztekin MF were responsible for methodology and investigation. Esen Z was responsible for investigation, too. Hüseyin TG, Ömer FK, Öztekin MF, Esen Z were responsible for resources, writing original draft preparation and data curation. Öztürk A was responsible for writing, review, editing, visualization and supervision. Hüseyin TG was responsible for project administration.

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