Relationship Between Social Media Addiction and Loneliness Among Undergraduate Students of University of Peshawar

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Abstract

The quantitative study examined the relationship between social media addiction and loneliness among undergraduate students at the University of Peshawar. Examining the relationship between these two variables is essential because it shows how excessive screen time harms a student's psychological health. This paper provides counsellors, universities, and students with the resources they need to build stronger support networks and promote better digital behaviors. The study was administered to 100 undergraduate students (50 male, 50 female). The Social Media Addiction Scale Student Form (SMAS-SF; Sahin, 2018) and the University of California, Los Angeles Loneliness Scale Version 3 (UCLA-LS3; Russell et al., 1996) were used in the current study. An informed consent form, demographic sheet, and two instruments were provided to participants. Results showed a positive correlation between addiction to social media and loneliness among undergraduate students of the University of Peshawar. The findings of this research depicted that social media addiction and loneliness were affected by gender. Results show females are more inclined to social media addiction and loneliness than males.

Keywords: Social Media Addiction, Loneliness, Social Networking Sites, Social Media.

Introduction

Social media is a technological advancement that everyone uses for entertainment, communication, blogging, and more. Pinterest, YouTube, Instagram, Twitter, WhatsApp, LinkedIn, and Facebook are popular social networking sites people use to share ideas, build skills, communicate, and entertain (Hudson, 2020). People spend beneficial time on social media for communication. Around 3.732 billion people are Internet users, according to Internet World Statistics (2017). Becoming more active and active on social media affects your body image and eating concerns 2.2 times more. Scrolling social media, individuals go through and see other people's photos, the best moments of their lives, in their status updates. In turn, this causes individuals to compare themselves to others, leading to an inferiority complex and also leading to depression (Hurley, 2019).

Social media addiction is the irresistible urge to log in and see every comment, which affects daily life activities. Being unnecessarily anxious about social media and having behavioural addiction refers to social media addiction (Hilliard, 2019). Addiction to social platforms is equivalent to an individual's dependency on wagering and dependency on harmful substances such as drugs, alcohol, and cigarettes (Hillard, 2020). Our brain secretes dopamine whenever a notification appears on our cell phone screen, prompting us to open it. Social networking websites are believed to connect communities on a large scale. Zhao (2021) found that excessive social media use negatively affects an individual's well-being.

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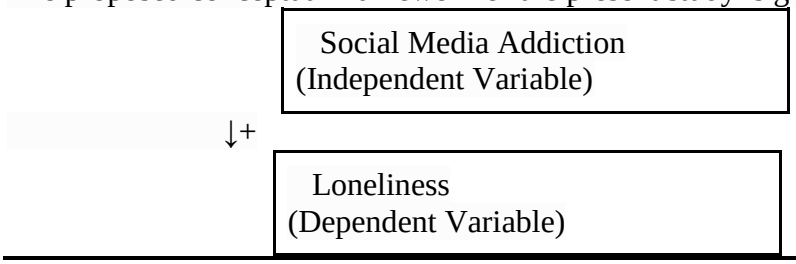
In the Renaissance period, the naturalist John Ray (2016) added the term' loneliness' to the world's glossary. He defined Loneliness as a state in which a person wants to be isolated and avoid people and places (Worsely, 2018). A study conducted by Amatentsin (2019) to determine loneliness in distinct age groups. It was found that loneliness is higher among late adolescents than among early adolescents. Social media addiction leads to loneliness, which results in distress in the mental well-being of individuals. Yung et al. (2017) found that loneliness leads to stress, anxiety, and sadness.

Maya (2022) and their co-authors found that both online and offline social capital are associated with loneliness. Rajeh et al. (2022) investigated a study to determine the association between loneliness, sleep, psychological well-being, and social media addiction. Results indicated that addiction to social media leads to loneliness. Yalcin et al. (2020) found that loneliness and smartphone addiction are positively correlated with each other. Darcin et al. (2016) unveiled that loneliness and social phobia are positively associated with smartphone addiction. Jiang et al. (2018) unveiled that high levels of smartphone addiction, loneliness, and low levels of individualism were found among international students.

Figure 1: Conceptual Framework

The proposed conceptual framework of the present study is given below:



The conceptual framework of this study illustrates that social media addiction acts as an independent variable and loneliness as a dependent variable. The framework suggests that excessive use of social media leads to loneliness among university students.

Rationale of the Study

The rationale of the research is to ascertain loneliness among undergraduate students that are developed through the frequent use of online networking platforms. This research focuses on the relation of social media usage to loneliness. The study's aim is to find out the gender differences in social media addiction and loneliness.

Objectives

1. To determine social media addiction in relation to loneliness among undergraduate students of the University of Peshawar.
2. To find out the gender differences in social media addiction and loneliness.

Hypotheses

H 1: There is a significant correlation between social media addiction and loneliness.
H 2: There is a significant gender difference in social media addiction.
H 3: There is a significant gender difference in loneliness.

Methodology

Research Design

A quantitative and correlational research design was used. Quantitative approach i.e survey method was used for data collection.

Sampling Technique

A non-probability convenience sampling technique was used to recruit the participants. This method was selected to facilitate easy access to a sample population drawn from the University of Peshawar.

Participants

The sample consists of 100 undergraduate students from the University of Peshawar. In this research, students in the age range of 18-23 years were included.

Instruments

Demographic information Sheet: To collect information such as gender, age, and semester, a demographic information sheet was used.

Social Media Addiction Scale-Student Form: SMAS-SF was developed by Sahin (2018).. This instrument comprises 29 questions, and all the questions are positive. It is a 5 points Likert scale in which the study subject answers the items from strongly disagree to strongly agree. SMAS-SF comprises four factors (virtual problems, virtual information, virtual tolerance, and virtual communication). As reported by Sahin (2018), the test-retest coefficient is 0.94 and Cronbach alpha is 0.93.

University of California Los Angeles scale For Loneliness Version 3: Psychologist Daniel Russell (1996) developed the UCLA-LS3 loneliness scale. This scale measures how often a person feels disconnected from others to measure one's personalized feeling of loneliness. It is a 4-point Likert scale in which the respondents answer the items from never too often. This instrument comprises 20 items, 9 items are positively worded, and 11 items are negatively worded. As reported by Russell (1996), the Cronbach alpha is 0.89 to 0.94 and the test-retest coefficient is 0.73.

Procedure

The consent was taken from authorities for the data collection. Demographics sheets were given to participants in order to obtain their names, ages, sex, and education. After taking informed consent from each participant, the questionnaire was delivered to the respondents. Instruction was given to the participants about how to fill the scale honestly and not to leave any items unfilled. Participants were told that they might leave the research at any time and without giving a reason. Privacy and confidentiality were rigorously upheld to guarantee ethical norms

Ethical Considerations

In order to conduct the research properly, this study complied with ethical standards. Prior to beginning, approval was obtained from the university's ethical committee. All of the participants' information was kept confidential and utilized exclusively for the study. At any time participants have the right to withdraw from the study. Additionally, participants were informed that they had the right to access psychological help at any point during or after their involvement in the study.

Statistical Analysis

With the help of the Statistical Package of Social Sciences, three statistical tools were used in the present research: Reliability analysis, Pearson correlation coefficient, and sample t-test.

Results

Table 1: Demographic Characteristics of the Participants

Variables	*f*	*%*	*M*	*SD*
Gender				
Male	50	50		
Female	50	50		
Age (in years)			20.45	1.32
Semester				
1-2	25	25		
3-4	25	25		
5-6	25	25		
7-8	25	25		

Note: f=Frequency, %= Percentage, M=Mean, SD=Standard Deviation

Table 1 indicates the demographic information of participants such as age, gender, and semester. The study consisted of 100 participants, with an equal distribution of gender (50% male, 50% female). The overall mean age was calculated at 20.45, with a standard deviation (SD) of 1.32.

Table 2: Validity and Reliability of study variables

Variable	N	Potential Range	Alpha (A)	(r)	M	SD
Social Media Addiction	100	29-145	.947	.947	2.77	.826
Loneliness	100	20-80	.960	.960	2.30	.716

Note: N= No of participants, r= Test re-test coefficient

Table 2 indicates that the Cronbach Alpha Value of social media addiction and loneliness are .947 and .960 respectively. The table represents that the test rest coefficient of social media addiction and loneliness are .947 and .960 respectively. These results depict that social media addiction and loneliness have good validity and reliability.

Table 3: Data Normality Assessment of the variables

	N	Skewness		Kurtosis	
Variable	Statistics	Statistic	St. Error	Statistic	Std. Error
Social Media Addiction	100	-.133	.241	-1.394	.478
Loneliness	100	-.251	.241	-.1.210	.478

Table 3 represents the data normality assessment of the variables. Table 3 depicts that all the continuous /scale variables had skewness values within ± 1 (Hair, Black, Babin, Anderson, 2019) and kurtosis values within ± 2, thus the use of a parametric test was justified.

Table 4: Correlation between social media addiction and loneliness

Variable	M	SD	Social Media Addiction	Loneliness
Social Media Addiction	2.77	.826	-	-
Loneliness	2.30	.716	.899**	-

N=100, **p<.001

Results of Table 4 shows that addiction to social media is positively correlated with loneliness among undergraduate students. Students who use more social media and become addicted, they will be more likely to experience loneliness and solitude. Table 4 also bears mean and standard deviation for descriptive purposes.

Table 5: A Relative Evaluation of Gender Differences on both variables

	Gender	N	M	SD	Mean Difference	T	Df	P
Social Media Addiction	Male	50	2.50	.903				
					-.534	-3.400	98	.001
	Female	50	3.03	.647				
Loneliness	Male	50	2.14	.788				
					-.333	-2.378	98	.002
	Female	50	2.47	.599				

Note. t>1.96v, p<0.05

Table 5 represents significant gender differences regarding social media addiction and loneliness. Females are more addicted to social media than men. Females are lonelier than men. Table 5 also reports the mean, standard deviation, number of male and female participants, and degrees of freedom. The t-value is greater than 1.96, indicating significance. Table 5 shows that the P-value is statistically significant.

Discussion

The current study examined the relationship between social media addiction and loneliness among undergraduate students at the University of Peshawar. The demographic information was collected from each participant in the current study. Participants were 50 males and 50 females. The frequency of both genders is 50. Mean standard deviation was 20.45 and 1.32, respectively (see Table 1). Reliability analysis is used in the current research to check the validity and reliability of the scales. After running reliability analysis for the Social Media Addiction Scale Student Form (SAMAS-SF) and the University of California, Los Angeles Loneliness Scale Version 3(UCLA-LS3), Cronbach's alpha and test-retest reliability coefficient were found to be good. (see Table 2). After running the normality tests for both scales, all continuous/scale variables had skewness values within ±1 (Hair, Black, Babin, Anderson, 2019) and kurtosis values within ±2, so the use of the parametric test was justified (see Table 3). The correlation coefficient is 0.899, indicating that social media addiction is positively correlated with loneliness (see Table 4). So, it proves the first hypothesis of the current study. This result was supported by Ozdemir et al.(2014), who found that internet addiction leads to anxiety, loneliness, and stress. Zhang et al. (2022) found that frequent social media use is associated with loneliness, supporting our first hypothesis. The first hypothesis was supported by social displacement theory (Kruat et al., 1998), which explains that students become less involved in meaningful, in-person connections on campus, which are crucial for emotional support, as they spend more time on digital platforms. In the context of this study, addicted students probably substitute shallower online relationships for the strong social ties of university life, which eventually results in elevated feelings of loneliness. Females (M=3.03) reported higher scores than males (M=2.50), t=3.40 >1.96, p=.001<0.05, with reference to social media addiction (see Table 5). So, it proves our second hypothesis. This result was supported by Mari et al. (2023), who found that females are more inclined to social media than men. Another study by Varchetta et al (2024) found that females are more addicted to social

media than men. The second hypothesis was supported by uses and gratification theory (Kuss et al., 2017), which explains that women are more likely than men to get addicted to social media because they use these platforms expressly to fulfill "social and emotional needs," such as maintaining intimate relationships and finding affection. Females (M=2.47) reported higher scores than males (M=2.14), t=2.378 >1.96, p=.002<0.05 with reference to loneliness (see Table 5). So, it proves our third hypothesis. Our third hypothesis is supported by Nicolaisen et al. (2023), who found that females are lonelier than men. The third hypothesis was supported by the relational-interdependent self-construal theory (Cross et al., 2000), which states that higher levels of loneliness among women are due to their placing greater emphasis on close relationships and experiencing a larger emotional void when these relationships are replaced by screen time.

Conclusion

In conclusion, dependency on social media is a frightening issue that increases day by day, which leads to many psychological distresses. This research reveals that social media addiction is positively correlated with loneliness among undergraduate students of the University of Peshawar. So, we can say that students who use social media frequently are more likely to feel lonelier. Findings also revealed that social media addiction and loneliness are statistically significantly affected by gender. The results of the current study will be beneficial for society to gain insight that social media addiction is a threatening issue and can lead to many serious behavioural and psychological problems. The current study will help psychiatrists and psychologists develop advanced, effective treatments and interventions for this alarming issue.

Implications

The current study can help society, the young generation, and psychologists by understanding that social media addiction is an alarming issue that needs to be addressed. This study enlightens the issue that most students face many psychological problems that occur due to excessive use of social media. Through this research, the medical and psychiatric fields will recognize the need for advanced treatments and interventions to reduce these issues among students at the University of Peshawar. This current research can help mental health workers by understanding that social media addiction leads to various mental health issues. So, in the future, mental health workers can raise awareness and launch campaigns about this issue.

Limitations and Suggestions

The University of Peshawar was the only institute from which data were collected. For better, more reliable results, it is recommended that future researchers collect data from all universities in Peshawar. The current research only focuses on the association of social media addiction with loneliness among students who are between 18 and 23 years old. For future research, they are recommended to conduct studies among children and older adults to examine these variables. The present study doesn't examine the impact of social media addiction on other mental health issues (depression, anxiety, low self-esteem, etc.). So, it is recommended that future researchers investigate the interconnection between excessive use of social media platforms and other mental health issues.

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