DIALOGUE SOCIAL SCIENCE REVIEW

The Role of Loneliness and Perceived Level of Stress on Excessive Social Apps Dependence among Young Adults

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Abstract
The current study inquires the connection between loneliness and level of stress and an over-reliance on social media apps. Questionnaires were used to gather data from the sample, which was made up of university students from Rawalpindi and Islamabad. For social network addiction, perceived stress, and loneliness, the scales' reliability was good. Pearson correlations were used along with multiple regression techniques to examine relationships between specific components of the data set. The conclusion of the current study indicated that there was a notable positive association between loneliness and perceived stress and notable positive relation amid loneliness and social app dependence. Furthermore, it was discovered that stress and loneliness were major predictors of excessive reliance on social media apps. Overall, the study highlighted the connection between social media addiction, loneliness, and perceived stress. The study offered insight of mental health for adults and empowered them to take control of their social app habits. The study may suggest to review different strategies that can be adopted to help people aware of the consequences.

Keywords: Loneliness, Media Addiction, Social Apps, Social App Dependence, Perceived Stress

Introduction
The young adults' perceived stress level and ability are two important elements that impact social apps addiction. The subjective experience of social isolation or lack of companionship. Loneliness is becoming more widely acknowledgment as a problem, particularly in younger generations who may primarily rely on digital interactions for social connection. According to evolutionary theories, the negative explanation error for social media information is based on chronic loneliness in people (Qualter et al., 2015).
Loneliness is defined as the emotional and psychological condition which is based on different multiple perspectives including emotional loneliness and social loneliness termed by Til's typology (1973) and emotional, existential, and

social loneliness highlighted by Tilburg (2021). Loneliness is also considered as such an emotional situation which is experience by people when they are in the condition of discrepancy in desired and perceived quality in terms of their social relations (Perlman & Peplau, 1981).

Loneliness is assumed as the subjective, painful experiences by individuals and feeling of lacking or deficiency in people connectivity with others. It indicated the missing or improper or deficient feelings in connection with others (Bekhet et al., 2008). In one of the experimental study has identified that students who use social media up to 10 minutes a day in a duration of three weeks encounter significant less loneliness and depression as compared to those in control group using social media surpassing any restrictions (Hunt et al., 2018).

The objective measures of stress are commonly used which states that the situations are the major and minor cause of problem, pathology, and illness. This inference is combating to the viejw that people make social association and bonding with their surroundings, overcoming all the threats and challenging event in the presence of their coping resources (Lazarus, 1966). The perceived stress levels are calculated globally in terms of reactions by individuals towards certain events concluded that number of reported events greatly linked with the level of perceived stress. According to the previous study (Kahn et al., 1964), the subjective standards of reactions to the specific stressor are used widely including the measure of perceived stress in occupation.

Excessive use of social media apps is characterized by "being overly concerned about online activities, driven by an uncontrollable motivation to perform the behavior, and devoting so much time and effort to it that it impairs other important life areas" (Andreassen et al., 2014). To see the wide variety use of social network sites, it is considered worthy to know the major risks counted in the improper use of social media. The public health concerns highlighted by World Health Organization concerns over the sameness of symptoms and signs of internet gaming addiction that consisted of problematic use of social networks, gambling issues, and substance use issues (Billieux et al., 2014).

Literature Review

The loneliness in adolescents is positively correlated with depression, stress, social anxiety, loneliness, substance use, and addiction related to technological innovations (Parashkouh et al., 2018). One of the primary factors contributing to teenage addiction of social media is considered to be the tendencies of loneliness. Teenagers who are unable to make social connections with friends, family or surroundings typically isolate themselves and experience loneliness (Qualter et al., 2015). In order to satisfy their desire for social connections and to combat the feelings of loneliness, adolescents resort to social media platforms (Subrahmanyam & Greenfield, 2008).

Furthermore, the interconnection between use of social media and mental health outcomes differs widely by many factors. In one of the previous studies found that people who are having 60 and more years of age involved accessing variety of social media usage encounter less loneliness in terms of social life. In contrast, the younger people with the age range of 18 to 39 years using many different extents of social media encounter more levels of emotion-based loneliness (Bonsaksen et al., 2021).

The addiction of internet served in developing the feelings of loneliness. The

previous research has given an idea of a positive association between loneliness and internet addiction, showing that people with more extent of internet addiction more inclined to undergo a stronger sense of loneliness. It is often imputed to the segregation because of more online connections, which further lessen family and social interactions (Khatcherian et al., 2022).

According to earlier research, lonely people are highly vulnerable to involve in internet addiction activities, which further strengthify their loneliness (Kim et al., 2009). While, excessive internet use can exacerbate loneliness, resulting in a vicious cycle. Researchers have established a significant and unmistakable reciprocal link between loneliness and Internet addiction (Reed et al., 2023). However, this reciprocal link is complicated; while utilizing the Internet to strengthen or broaden social ties may lessen loneliness, using it to replace offline social engagement can increase loneliness.

The earlier research has indicated that the powerful predictor of anxiety, stress, and depression is found to be loneliness. More recently showed that social separation exacerbated feelings of perceived isolation, which predicted higher symptoms of stress and sadness. This study did, however, also show that there was a two-directional effect, with higher levels of stress and depression symptoms predicting higher levels of loneliness and isolation (Santini et al., 2020).

The stress in university life can be because of many factors which include incidence of failure in academics, separation from home, disconnection from family, and sudden shift in friend relationships (Borjalilu et al., 2015). To overcome the stress in the lives of people, few students choose to combat their problems by other means including using a lot of time online using social media in order to avoid their issues. The closely related interconnection found between perceived stress and internet related problem in behaviors including internet addition, phone addiction, face book addiction in multiple studies (Chen et al., 2017; Samaha & Hawi, 2016), and Facebook addiction disorder.

Social media is often used for three main coping strategies. The first one highlighted by several studies discussed that stress propel social seeking support on online social media (Frison et al., 2015). The other coping strategy is that people can also use social media to improve stress related negative emotions considered to be as emotion-focused coping. Social media were in particular useful for divert people from a stressful event and for letting out their emotions. The last coping was found out to be helpful in solving stress-evoking problem considered as problem-focused coping.

Research Purpose and Objectives
The purpose of the current study was to look at how loneliness and perceived stress levels relate to an excessive reliance on social media apps.

1. To look at the connection between excessive reliance on social media apps and loneliness.
2. To gauge young individuals' perceptions of stress and loneliness.
3. To look into the connection between felt stress and an over-reliance on social media apps.
4. To predict how loneliness and perceived stress may affect an excessive reliance on social media apps.

Methodology
Research Methodology
It is a quantitative study aims to look for the relationship and impact of loneliness and stress on social app dependence. The present study is based on descriptive and correlational research design.

Collection of Data
The current study was based on collecting the primary data. It was collected by means of already refined questionnaire from university students in the locality of Rawalpindi and Islamabad.

Sample
The sample for this study consisted of 400 university students; and random sampling has been used. This method makes use of giving equal chance to others for participation in the research under study.

Instruments
The first measure used was Perceived Stress Scale (PSS), developed by Gross and Seebab (2014). The scale consists of 11 items showing a good reliability value. The Cronbach's Alpha values vary in range from 0.58 to 0.66. It is measured using 5-point Likert scale (not at all – completely). The scale measures diverse dimension of stress.

The second measure was Social Networking Addiction Scale (SNA). The Scale was developed by Shahnawaz and Rehman (2020). It consists of 21 items. It is measured using 7 likert scale. The Scale can be used to measure addiction of all form of social networking such as Facebook, Instagram, twitter or WhatsApp. It showed a good alpha and test-retest reliability and found to be psychometrically sound measure. The Chronbach's Alpha in the present study was found to be .93. The other measure was Loneliness Scale (LS). It was developed in 2019 (Aune et al., 2019). The scale consists of 7 items. The Scale is used to measure loneliness in adult with in adequate internal consistency (.80 to .87). It is measured using 5 points Likert scaling.

Analysis of Data
All the study data were analyzed using the statistical package for the science (SPSS). Moreover, descriptive analysis, correlation analysis, and regress analysis were used to evaluate the study objectives.

Results and Discussion

Table 1: Reliability and Descriptive of Social Networking Addiction, Standard Stress and Loneliness Scale.

	n	α	M	SD	Range
Social Networking Addiction Scale	21	.95	80.75	28.17	21-147
Salience	4	.89	15.01	7.06	4-28
Mood modification	3	.85	12.34	5.15	3-21
Tolerance	3	.77	12.14	4.74	3-21
Withdrawal	4	.82	14.58	6.27	4-28
Conflict	3	.82	11.13	4.88	3-21

Relapse	4	.84	15.54	6.14	4-28
Standard Stress Scale	11	.675	10.45	10.45	11-55
Buenos Aires Loneliness Scale	7	.689	16.67	4.43	7-28

Note. N=400. *n*=No. of items, **α**=Alpha reliability, M=Mean, SD= Standard Deviation

The value mean, standard deviation, and alpha coefficient variable of the study which include role of loneliness and perceived level of stress is depicted in Table 1. The reliability analysis indicates that the alpha score of the social networking addiction questionnaire is .95 that is good. The alpha coefficient of the standard stress questionnaire is .67 that is quite acceptable. For the Scale loneliness questionnaire among young adults, the alpha reliability is .68 that is also in acceptable range. It also shows the mean and standard deviation of the scales.

Table 2: Correlation Matrix between Social App Dependence, Loneliness, and Perceived Stress.

	Variables	1	2	3	4	5	6	7	8	9
1	Social Apps Dependence	-	.79**	.79**	.83**	.82**	.82**	.85**	.22**	.14**
2	Salience		-	.70**	.61**	.51**	.51**	.51**	.22**	.12**
3	Mood modification			-	.63**	.50**	.53**	.57**	.25**	.12**
4	Tolerance				-	.65**	.59**	.68**	.13**	.13**
5	Withdrawal					-	.67**	.68**	.13**	.12**
6	Conflict						-	.79**	.13**	.12*
7	Relapse							-	.18**	.11*
8	Perceived Stress								-	.16**
9	Loneliness									-

Note. N=400. *p<.05, **<.01

The association matrix for the study's loneliness, excessive reliance on social media apps, and perceived stress as manifested by Table 2. The findings provided a substantial positive correlation (r =.22) between social networking addiction and perceived stress, indicating that people become more reliant on social media when their perceived stress levels rise. Additionally, there is a substantial positive correlation between social app dependence and loneliness (r =.14), suggesting that adults who experience higher levels of loneliness are more reliant on social applications. Furthermore, loneliness and stress have a substantial positive relationship (r =.16). It demonstrates that loneliness rises in tandem with stress levels.

Table 3: Regression Coefficient of Loneliness and Perceived Stress on Social App Dependence among Adults

	Model 1			Model 2		
Variables	B	β	SE	B	β	SE
Constant	62.302		5.913	45.530		7.044
Loneliness	1.116	.160***	.346	.887	.127***	.343
Perceived Stress				.554	.206***	.132
R²	.026			.067		
ΔR²	.023			.062		

Note. N=400. ***p<.001

Multiple Linear Regression Analysis is used to predict social app dependence.

Table 3 shows the impact of loneliness and perceived level of stress on social app dependence. In Model 1, the R^2 value of .026 explained that the independent variable including loneliness revealed 2.6% variance in the dependent variable with $F(1, 397) = 10.41$, $p < .001$. The results showed that loneliness positively predicted social app dependence. In Model 2, the R^2 value of .067 reported that the independent variables including loneliness and perceived stress explained 6.7% variance in the outcome variable with $F(2, 396) = 14.17$, $p < .001$. The findings revealed that loneliness and perceived stress positively predicted social app dependence.

Conclusion and Limitations

The current study focused on providing the major role that loneliness and perceived stress play in people' over-reliance on social media. The findings provide strong evidence that loneliness and stress are positively correlated with increased reliance on social networking sites. The study also emphasized the importance of demographic factors, such as age, gender, marital status, education, employment, socioeconomic status, and family type, that influence the relationship between stress, loneliness, and reliance on social apps. The student sample from Rawalpindi/Islamabad University provided valuable insights into these dynamics.

The findings of the current study have major ramifications for both practical solutions and future research. The specific and important strategies for reducing the excessive use of social media apps may be to lessen stress and loneliness. Future interventions should focus on promoting healthy coping strategies and lowering the psychological factors that lead to social media dependence. Generally, the study contributes to our understanding of the psychological and demographic factors that influence the social media app use and establishes the framework for future research in this area.

The current study supported a positive interrelation between loneliness, stress, and the overuse of social networking sites, one of the most effective strategies to mitigate social media dependency is addressing the root psychological issues. Although the current study has valuable contribution to digital psychology research but it has its own limitations. The sample was restricted to the university students and raises the concern of generalizability. The current paper did not consider cultural, personality, and socioeconomic differences within the sample, relying solely on self-report measures, which may be subject to biases such as social desirability and inaccurate self-perception.

Suggestions

This study identifies the role of various demographic factors, such as age, gender, marital status, education, and socioeconomic status, on social media usage. Future research should continue to explore how these factors specifically contribute to the dynamics of stress, loneliness, and social media dependency. This understanding could lead to more targeted interventions tailored to specific groups. For instance, young adults, who are often at a higher risk of social media dependency, might benefit from programs designed specifically for their developmental stage, while older adults could benefit from different strategies that address the unique ways, they experience loneliness and stress.

Despite the fact, the present study provides valuable cross-sectional data, further

research should explore the long-term effects of loneliness and stress on social media use through longitudinal studies. Such studies would help to establish causal relationships and provide insights into whether prolonged reliance on social media worsens mental health conditions over time. Moreover, it would be beneficial to investigate how interventions designed to reduce stress and loneliness impact long-term social media habits and overall psychological well-being.

As the findings of the present study on the use of social media as a coping mechanism, future research could delve into the role that social media platforms themselves play in either exacerbating or mitigating these issues. Researchers should explore the impact of different platform features, such as "likes," "followers," and algorithm-driven content, which may reinforce feelings of loneliness or stress. Additionally, social media companies could be encouraged to design platforms that promote positive engagement and reduce harmful effects by implementing features that encourage real-world connections or offering mental health resources directly on their platforms.

The sample is based on university students from Rawalpindi/Islamabad University has provided valuable insights, future studies should expand the demographic scope of the sample. It is essential to include individuals from diverse age groups, geographic locations, educational backgrounds, and socioeconomic statuses. This would help create a more comprehensive understanding of how loneliness, stress, and social media dependency manifest across different populations. Such research could contribute to the development of more inclusive strategies and programs that are effective for a wider range of individuals.

In a nutshell, this study provides a crucial foundation for further exploration into the relationship between psychological factors, demographic influences, and social media usage. By focusing on the reduction of stress and loneliness, promoting healthy coping mechanisms, and considering demographic nuances, future research and interventions can help address the growing challenge of social media dependence and its impact on mental health. Implementing these recommendations will not only help alleviate the adverse effects of excessive social media use but also foster a more balanced and healthier relationship with digital platforms.

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