

# Social Media Problematic Use and Depression: A Quantitative Study of Pakistani Adults

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## Abstract

*Social media platforms offer opportunities for sharing content and interacting online. However, excessive use, especially among young adults, can lead to mental health challenges. This study's objective is to find an association between social media use and depression among young adults in Pakistan. Using purposive sampling, 144 participants aged 18 to 25 (110 men, 34 women) who had been active on social media for at least one year were included. Problematic social media use was measured using the Bergen Social Media Addiction Scale (Andreassen et al., 2016), and depression was assessed with the Beck Depression Inventory (Beck, 1961). The findings revealed a significant positive correlation between social media problematic use and depression. Additionally, regression analysis showed that social media use is a significant predictor of depression. The study highlights the importance of addressing excessive social media use to improve mental well-being, contextualizes the results within existing research, and provides recommendations while noting the study's limitations.*

**Keywords:** Social Media Usage, Depression, Youth Patterns.

## Introduction

Social media serves as a virtual space that facilitates the exchange of ideas, information, interests, and expressions (Thomas, 2025). Its versatility extends across various domains, including education, commerce, and international diplomacy (Lee, 2020). However, social media problematic use arises when its use begins to interfere with professional, practical, educational, and social functioning, often due to excessive time spent on online networking platforms (Keles et al., 2020; Li et al., 2021; Marín-Díaz et al., 2019).

Numerous studies have highlighted the impact of social media use on mental health, including feelings of loneliness, stress, and depression across different age groups in developed countries (Seabrook et al., 2016; Dhir et al., 2018; Keles et al., 2020). Specifically, social media problematic use has been linked to increased depressive symptoms, which may lead to self-harm ideation, sleep disturbances, and feelings of social isolation (Marchant et al., 2017; Yu et al., 2024; Marttila et al., 2021). This suggests that excessive time spent online can contribute to emotional distress and a sense of disconnection, while reducing social media use has been associated with decreased loneliness and depression (Pittman & Reich, 2016; Yavich et al.,

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2019; Hunt et al., 2018). Additionally, negative emotional states can reduce productivity and foster pessimistic thinking (Hume, 2012; Schwarz & Skurnik, 2003; Chow et al., 2023).

Research indicates a positive correlation between prolonged screen time, particularly on social media, and the severity of depressive symptoms (Rachubińska et al., 2021; Cunningham et al., 2021). A recent study by Shahid et al. (2024) found a significant association between social media problematic use and depression among Pakistani adults aged 18 to 30. Similarly, Kausar et al. (2024) reported that the impact of social media problematic use on depressive symptoms is statistically significant among young adults. Another study by Kanwal et al. (2024) revealed a significant association between social media problematic use and depression among individuals aged 18 to 25. Research has shown that excessive social media use often leads to social comparison, which is associated with depressive symptoms (Choudhury et al., 2013; Vogel et al., 2014; Lin et al., 2016).

Although there is substantial literature available regarding excessive use of social media and depressive symptoms, limited research has been conducted in Pakistan on these variables. Therefore, to address this gap and provide implications for future research, this study investigates the association between social media problematic use and depression among young adults, specifically students, who are the future assets of the country.

### Hypotheses

*H1:* There is likely to be a positive and significant association between social media problematic use and depression.

*H2:* Social media problematic use is likely to positively and significantly predict depression.

### Methodology

This study employed a correlational research design to explore the relationship between social media problematic use and depression among young adults. Data were collected from 144 college and university students aged 18 to 30. Purposive sampling was used to select participants (both men and women) who had been using social media for at least one year. Social media problematic use was measured using the Bergen Social Media Addiction Scale (BSMAS), a six-item Likert scale (1–5) developed by Andreassen et al. (2016), with an internal consistency of 0.8. Depression was assessed using the Beck Depression Inventory-II (BDI-II), a 21-item Likert scale (0–3) created by Aaron T. Beck (1961), with an internal consistency of 0.88. All APA 7 ethical standards were followed, including obtaining permission from the relevant department and authors prior to data collection. Written consent was obtained from participants, ensuring their voluntary participation and the right to withdraw at any point. Additionally, no psychological or physical harm was caused to participants, and they were thanked after data collection. Data analysis was performed using SPSS to examine the relationships between these variables, with a specific focus on the mediating role of depression.

### Result

**Table 1: Characteristics of Participants (N=144)**

Sample Characteristics	<i>f</i>	%	<i>M</i>	<i>SD</i>
Gender				
Men	110	76		
Women	34	24		
Age			24.20	2.60
Education				
Intermediate	12	8		
Bachelor	72	50		
Master	60	42		

*Note:* *f*=frequency, %=Percentage, *M*=Mean, *SD*=Standard deviation

According to the table, 110 participants (76%) were men, while 34 (24%) were women. The average age of the participants was 24.20 years, with a standard deviation of 2.60. In terms of education, the majority held bachelor's degrees (72 participants, 50%), followed by master's degrees (60 participants, 42%), and only 12 participants (8%) had intermediate qualifications.

**Table 2: Correlational Analysis (N=144)**

Variables	1	2
1.Social Media Problematic Use	-	.28**
2.Depression		-

Note: \*\* $p < .01$

The above table depicts social media is significantly and positively associated with depression.

**Table 3: Regression for Depression (N=144)**

Variables	B	SE	B	R	R <sup>2</sup>	95% CI	
						LL	UL
Step 1				.28	.08		
SMA	.68	.17	.28***			.26	.97

Note: SMA=Social Media Addiction, SC= Social Connectedness, \*\*\* $P < .001$

The table above shows that social media problematic use significantly and positively predicts depression ( $\beta = .28^{***}$ ,  $R^2 = .08$ ,  $F = 12.57$ ), accounting for 8% of the variance in depression.

## Discussion

The primary objective of this investigation was to explore the complex relationships between social media problematic use and depression among young adults, specifically students. The study aims to contribute to academic literature and provide practical implications.

The first hypothesis of the study is supported by correlational analysis, which reveals a significant association between social media problematic use and depression. These findings align with previous research, such as a study showing that excessive social media use is positively linked to depression among youth in Pakistan (Shahid et al., 2024). Another recent study also supports this result, indicating that social media problematic use is associated with negative emotions, including depression, among young adults (Kausar et al., 2024). Potential reasons for this connection include comparing oneself to others who appear to have better lives or appearances, as well as experiences of cyberbullying, such as receiving negative comments or hurtful interactions online.

The second hypothesis is also supported by regression analysis, which shows that social media problematic use significantly and positively affects depression. This result is consistent with prior research, such as a study demonstrating that social media problematic use predicts depression among youth (Shahid et al., 2024). Another study further supports these findings, highlighting that social media activity contains indicators of depression, including reduced social engagement, increased negative emotions, and heightened concerns about relationships and health (De Choudhury et al., 2013).

## Conclusion

The objective of the study was to investigate problematic social media use and its association with depression among young adults in Pakistan. A correlational research design and purposive sampling technique were employed, with the inclusion criteria limited to college and university

students aged 18 to 25 who had been using social media for the past year. The analysis revealed a positive and significant association between problematic social media use and depression. Moreover, the effect of problematic social media use on depression was also significantly positive. Thus, the study's hallmark finding is proven, and it provides implications for young adults to enhance their well-being.

### Recommendations

The study's narrow focus on individuals aged 18 to 30 and its small sample size of 144 limits the generalizability of its findings. Future research should expand to include a broader age range and use statistical tools like G\*Power to determine an appropriate sample size, ensuring more reliable and representative results. Further investigation into factors such as sleep patterns and their relationship with social media use could also deepen the understanding of mental well-being. Lastly, more research is needed to clarify the mechanisms linking depression to behavioral changes, offering a more comprehensive understanding of this connection. Additionally, selecting balanced demographics, such as equal representation of men and women and varying educational levels, to examine mean differences among demographic groups may provide a more comprehensive insight into the literature.

### Implications

The study underscores that excessive social media use can significantly impact mental health, highlighting the need for initiatives to promote healthier online habits and improve digital well-being. Social media platforms are encouraged to develop features that foster positive interactions, while schools should integrate education on responsible internet use and its emotional effects into their curricula. Collaborative efforts among researchers, educators, and platform developers are essential to address the mental health challenges associated with social media and create a more supportive online environment.

Additionally, parents need to be made aware of the importance of spending quality time with their children and young adults. Similarly, youth should be educated about the significance of seeking psychological help from mental health professionals when needed.

### References

- Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzoni, E., & Pallesen, S. Bergen Social Media Addiction Scale. *Psychology of Addictive Behaviors*.
- Beck, A. T., Ward, C. H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. *Archives of general psychiatry*, 4(6), 561-571.
- Chow, K., Fritz, T., Holsti, L., Barbic, S., & McGrenere, J. (2023). Feeling stressed and unproductive? A field evaluation of a therapy-inspired digital intervention for knowledge workers. *ACM Transactions on Computer-Human Interaction*, 31(1), 1-33.
- Cunningham, S., Hudson, C. C., & Harkness, K. (2021). Social media and depression symptoms: a meta-analysis. *Research on child and adolescent psychopathology*, 49(2), 241-253.
- De Choudhury, M., Gamon, M., Counts, S., & Horvitz, E. (2013). Predicting depression via social media. In *Proceedings of the international AAAI conference on web and social media*, 7(1), pp. 128-137).
- Dhir, A., Yossatorn, Y., Kaur, P., & Chen, S. (2018). Online social media fatigue and psychological wellbeing—A study of compulsive use, fear of missing out, fatigue, anxiety and depression. *International journal of information management*, 40, 141-152.
- Hume, D. (2012). Emotions and moods. *Organizational behavior*, (258-297).
- Hunt, M. G., Marx, R., Lipson, C., & Young, J. (2018). No more FOMO: Limiting social media decreases loneliness and depression. *Journal of Social and Clinical Psychology*, 37(10), 751-768.

- Kanwal, A., Munir, H., & Ibrar, S. (2024). Smartphone addiction, problematic social media use & mental health problems among young adults. *Gomal University Journal of Research*, 40(4), 456-466.
- Kausar, R., Salman, F., & Irfan, A. (2024). The social media addiction negative emotions and aggression: a quantitative study of young adults. *Gomal University Journal of Research*, 40(4), 492-502.
- Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International journal of adolescence and youth*, 25(1), 79-93.
- Keles, B., McCrae, N., & Grealish, A. (2020). A systematic review: the influence of social media on depression, anxiety and psychological distress in adolescents. *International journal of adolescence and youth*, 25(1), 79-93.
- Lee, N. R. (2020). The future of social marketing: let's get it in orbit by 2025!. *Social Marketing Quarterly*, 26(1), 3-13.
- Li, Y., Wang, Y., Jiang, J., Valdimarsdóttir, U. A., Fall, K., Fang, F., & Zhang, W. (2021). Psychological distress among health professional students during the COVID-19 outbreak. *Psychological medicine*, 51(11), 1952-1954.
- Lin, L. Y., Sidani, J. E., Shensa, A., Radovic, A., Miller, E., Colditz, J. B., & Primack, B. A. (2016). Association between social media use and depression among US young adults. *Depression and anxiety*, 33(4), 323-331.
- Marchant, A., Hawton, K., Stewart, A., Montgomery, P., Singaravelu, V., Lloyd, K., & John, A. (2017). A systematic review of the relationship between internet use, self-harm and suicidal behaviour in young people: The good, the bad and the unknown. *PloS one*, 12(8), e0181722.
- Marín-Díaz, V., Vega-Gea, E., & Passey, D. (2019). Determination of problematic use of social networks by university students. *RIED. Revista Iberoamericana de Educación a Distancia*, 22(2), 135-152.
- Marttila, E., Koivula, A., & Räsänen, P. (2021). Does excessive social media use decrease subjective well-being? A longitudinal analysis of the relationship between problematic use, loneliness and life satisfaction. *Telematics and Informatics*, 59, 101556.
- Pittman, M., & Reich, B. (2016). Social media and loneliness: Why an Instagram picture may be worth more than a thousand Twitter words. *Computers in human behavior*, 62, 155-167.
- Rachubińska, K., Cybulska, A. M., & Grochans, E. (2021). The relationship between loneliness, depression, internet and social media addiction among young Polish women. *Eur Rev Med Pharmacol Sci*, 25(4), 1982-1989.
- Schwarz, N., & Skurnik, I. (2003). Feeling and thinking: Implications for problem solving. *The nature of problem solving*, ed. J. Davidson & RJ Sternberg, 263-92.
- Seabrook, E. M., Kern, M. L., & Rickard, N. S. (2016). Social networking sites, depression, and anxiety: a systematic review. *JMIR mental health*, 3(4), e5842.
- Shahid, M. S., Yousaf, R., & Munir, H. (2024). Social media addiction, depression and aggression in young adults. *Journal of Professional & Applied Psychology*, 5(2), 276-285.
- Thomas, R. (2025). Exploring Tomorrow: Evolution of Virtual Communities and Social Media. In *Building Power, Safety, and Trust in Virtual Communities* (pp. 333-358). IGI Global.
- Vogel, E. A., Rose, J. P., Roberts, L. R., & Eckles, K. (2014). Social comparison, social media, and self-esteem. *Psychology of popular media culture*, 3(4), 206.
- Yavich, R., Davidovitch, N., & Frenkel, Z. (2019). Social Media and Loneliness--Forever Connected?. *Higher Education Studies*, 9(2), 10-21.
- Yu, Z., Zhu, X., & Li, Y. (2024). The association between problematic short video use and suicidal ideation and self-injurious behaviors: the mediating roles of sleep disturbance and depression. *BMC public health*, 24(1), 1689.