



**THE EFFECT OF PROBLEMATIC SOCIAL MEDIA USE AND ITS
RELATIONSHIP WITH DEPRESSION AMONG THE UNIVERSITY STUDENTS
OF ASSAM**

Deepsikha Kalita

Scholar - M.Sc. Clinical Psychology
Assam Downtown University

ABSTRACT

The purpose of this study was to find out the effect of social media use and its relationship with depression among university students. An analysis was carried out to find whether there is a link between excessive use of social media and depression. The study was conducted by purposive sampling of 110 university students aged 18-25 living in the city of Guwahati, India. A quantitative correlational research design was adopted for the study. A questionnaire was developed to obtain Social Media Addiction (SMAS) scores, Beck Depression Inventory (BDI) scores, and demographic information from participants. The study revealed a positive significant correlation between excessive social media use and depression. The results of the Pearson's correlation analysis showed a significant positive association between the scores for social media addiction and depression, with the following values: $r = .50$, $n = 110$, $p = .01$. It was determined that more consideration has to be paid to what social media is doing to each individual user given its increasing widespread use. The style of thinking and how information is grasped is changing as a result of the easy availability of social media's limitless communication and interaction opportunities.

KEYWORDS: Social Media, Depression, Addiction, Mental Health, University students.

INTRODUCTION

Social Media/Social Networking Sites (SNS) has become an essential part of day-to-day life, it is a bridge for people to have interpersonal relationships and communicate both personally and

CORRESPONDING AUTHOR:	RESEARCH ARTICLE
<p>Deepsikha Kalita Scholar - M.Sc. Clinical Psychology Assam Downtown University, Assam, India. Email: sikhakalita111@gmail.com</p>	

professionally. The growth of SNSs is supported by a large number of active social media platforms, notably the more well-known ones like Facebook, Instagram, Twitter, and WhatsApp. According to data from Facebook's self-service tools, at least 349.7 million Indians are currently active Facebook users as of July 2022. According to an Instagram audience size survey, there were 230.25 million Instagram users in India as of January 2022 (S.Dixon, 2022). According to WhatsApp Statistics 2022, India accounts for 487.5 million WhatsApp users. Social media or SNS addiction is not included in the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) or the International Classification of Diseases, Eleventh Edition. It is advised to use cautious because there is currently a lack of solid proof. It is additionally challenging to direct diagnosis and management strategies due to the lack of generally acknowledged nomenclature. The evaluation of this behavioural addiction without a clinical diagnosis was done in earlier studies on social media addiction using surveys and questionnaires. Children and students are thought to be especially vulnerable to problematic internet use (Ioannidis et al., 2018; Kuss et al., 2013; Kuss & Lopez-Fernandez, 2016). The fear of missing out (FOMO), smartphone addiction, and nomophobia (the irrational fear of being without your mobile phone) have all been proposed as mediators of excessive social networking behaviour (Bragazzi and Del Puente, 2014).

Social networking site (SNS) addiction is characterised by an excessive preoccupation with SNSs, a strong urge to access or use SNSs, and spending so much time and effort on SNSs that it interferes with other social activities, studies, work opportunities, interpersonal relationships, and psychological health and well-being (Schou Andreassen & Pallesen, 2014).

Depression is one of the most common mental health conditions in the present world, especially among young individuals. The World Health Organization (WHO) estimates that more than 264 million people worldwide experience depression. Depression can cause sufferers to struggle tremendously in their day-to-day activities, such as working, learning, and performing home duties, while a severe case of depression might result in suicide. Every year, almost 800,000 people commit suicide, making it the second greatest cause of death for young people between the ages of 15 and 29. (WHO, 2020). Depression is characterised by melancholy, a loss of interest or enjoyment, a sense of guilt or low self-worth, interrupted sleep or food, a sense of being exhausted, and trouble concentrating (abridge version, WHO, 2017). However, research indicates that utilising social media, especially among the younger generation, can have a negative impact on users' mental health (Glazzard & Stones, 2016). According to other studies, young adults who use social media excessively are more likely to have mental health issues like depression, anxiety, stress, and low self-esteem (see Seabrook et al., 2016).

Numerous studies have examined the links between regular internet usage, internet addiction, and depression in the literature that was reviewed. For instance, research by Tan et al. (2016) and Banjanin et al. (2015) indicated a significant positive connection between internet use and depression. They asserted that people's levels of hopelessness increased as they spent more time online. Upon the investigation of relationships among internet addiction, loneliness, low self-esteem, and depression in high school adolescent, the findings revealed a high positive correlation between sadness and internet addiction (Ayas & Horzum, 2013). Five categories under the

phenomena of Internet addiction have been identified: data overload, computer addiction, net compulsion, and cyber-relationship addiction (Young, 1998). Social media addiction definitely falls under the umbrella of cyber-relationship addiction because the goal of using social media is to establish and maintain both online and offline relationships (Kuss & Griffiths, 2011).

Although there are many studies on how internet use, self-esteem, and social media addiction impact people's levels of depression, however it is thought that not enough study has been conducted with Indian university students. They could gradually acquire a social media addiction over time and turn into social media addicts.

OBJECTIVES OF THE STUDY

The main objectives of the study were –

1. To measure the relationship between social media use and depression among university students.
2. To determine the socio-demographic characteristics linked with both excessive social media use and depression.
3. To determine the gender differences among college students' use of social media platforms and the severity of their depression.

METHODOLOGY

Research Design

Quantitative correlational research design was adopted, and an electronic questionnaire was used to collect data.

Sampling technique

Purposive sampling was used to collect a sample of students who met the inclusion criteria.

Inclusion and exclusion criteria

Male and female students pursuing undergraduate and post-graduate courses, in the age group of 18-25, enrolled in universities in the Guwahati city of the state of Assam of India meet the inclusion requirements. The online invitation explained the study's nature and objectives and provided participants with assurances of confidentiality.

Sample

Students were contacted and a request was sent to participate in this study. A total of 45 male and 65 female undergraduate and post-graduate students are selected for the study. The sample consisted of 48.2% undergraduate students ($n = 53$) and 51.8% postgraduate students ($n = 57$). All of the participants were social media users and the most commonly used social media applications were Whatsapp and Instagram.

Geographical area

The present study was conducted in the city of Guwahati, Assam. This beautiful state lies along the Brahmaputra River and is picturesquely situated with an amphitheater of wooded hills to

the south. It is known for holy sites like the hilltop Kamakhya Temple, featuring shines to Hindu deities Shiva and Vishnu. It is the largest city in the Indian state of Assam and also the largest urban area in Northeast India. Dispur, the capital of the Indian state of Assam is situated within the city. Guwahati Municipal Corporation (GMC), the city's local government covers an area of 216 sq. km.

Instruments

Data collection tools were combined in a single questionnaire and presented to the participants through an online platform. The questionnaire was created on Google Forms, and the link for the survey was distributed to individuals in different universities. Participation took place on a voluntary basis. A 37-items self-administered questionnaire was administered in the current study. Total time to complete the survey was about 5-10 min for each participant. The questionnaire consisted mainly of three parts: demographic and educational variables, and the other two sections consisting of tools used in the study: The Bergen Social Media Addiction Scale and The Beck's Depression Inventory.

Demographic information

Demographic variables were age, gender, marital status (married, single, divorced, separated, others) and living condition (parent's home, hostel, rented, others). Educational variable was qualification (pursuing undergraduate course, pursuing post-graduate course).

Measures

The Bergen Social Media Addiction Scale (BSMAS)

The Bergen Social Media Addiction Scale (BSMAS) is a self-reported questionnaire developed by Andreassen and colleagues, it has been used in several recent studies because of its simplicity, suitability for large-scale studies, widespread international acceptance, and sound rationale. The BSMAS was made by modifying the items of the well-validated Bergen Facebook Addiction Scale (BFAS) that was developed to measure Facebook addiction. The BSMAS consisted of the same items as the BFAS except that the term "Facebook" was changed into "social media". It was used to assess social media addiction and experience of using social media within the past week. It contains six items each item reflected one of the core addiction components (salience, mood, modification, tolerance, withdrawal conflict, and relapse) proposed by Griffiths (2005). It is rated on a five-point Likert scale ranging from 1 (very rarely) to 5 (very often), yielding a total score ranging from 6 to 30. A higher score on the BSMAS indicates a greater risk of addiction to social media. The BSMAS has been translated into several languages and has shown acceptable psychometric properties across studies. The scale has shown good internal consistency reliability with a Cronbach's α of 0.88.

Beck's Depression Inventory (BDI)

The Beck Depression Inventory (BDI) is commonly used for finding out the severity level of depression. In the first portion of the test, psychological symptoms are assessed whereas the second portion assesses physical symptoms. The BDI test includes a 21 item self-report using a four-point

scale ranging which ranges from 0 (symptom not present) to 3 (very intense symptom). The test takes approximately 5 to 10 minutes to complete. High concurrent validity ratings are given between the BDI and other depression instruments as the Minnesota Multiphasic Personality Inventory and the Hamilton Depression Scale; 0.77 correlation rating was calculated when compared with inventory and psychiatric ratings. The BDI has also showed high construct validity with the medical symptoms it measures. Beck's study reported a coefficient alpha rating .93 for college student samples.

DATA ANALYSIS

Data collected through Google Forms were analyzed using Statistical Package for Social Science (SPSS) version 22.0 and Microsoft Excel 2016. Firstly, Microsoft Excel was used to enter data and then prepared for SPSS format.

RESULTS

Students' level of depression.

Beck Depression Inventory Levels	N	Percentage
Normal (1-10)	30	27.3 %
Mild mood disturbance (11-16)	23	20.9%
Borderline clinical depression (17-20)	15	13.6%
Moderate depression (21-30)	22	20%
Severe depression (30-63)	17	15.4%
Extreme depression (over 40)	3	2.7%

Table 1. Students' level of depression.

Upon examination of the depression levels of the participants, 27.3% had normal ups and downs; 20.9% had mild mood disturbance; 13.6% had borderline clinical depression; 20% had moderate depression; 15.4% had severe depression and the rate of those with extreme level of depression are 2.7%.

Socio demographic features of participants:

A total of 110 samples were selected for the study, 40.9% of the participants in the study were men ($n = 45$) and 59.1% were women ($n = 65$). The ages of the participants ranged between 18 and 25, and the average age of the sample was 22.18.

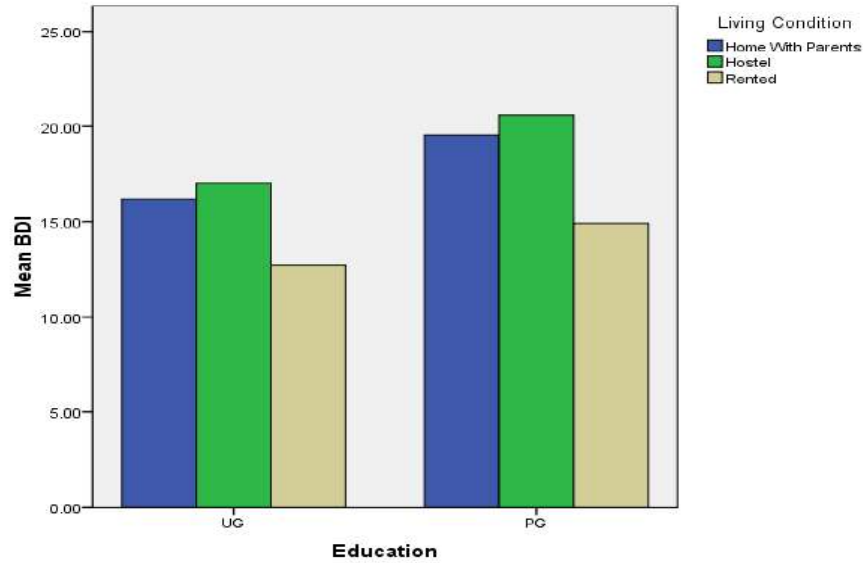


Figure 1: Average scores of BDI and the living condition of the UG and PG students.

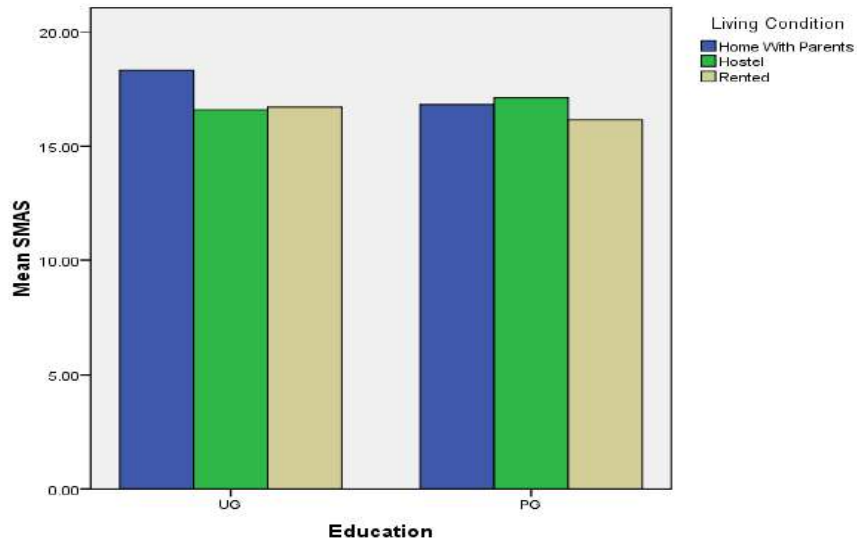


Figure 2: Average scores of SMAS and the living condition of the UG and PG students.

The study was conducted on 48.2% undergraduate students ($n = 53$), 51.8% postgraduate students ($n = 57$). A total of 49.1% of the participants live in hostel ($n = 54$), 28.2 % of participants live with their parents (31), 17.3% of the participants ($n = 19$) live in a rented house; 5.5% of the participants ($n = 6$) have other living arrangement.

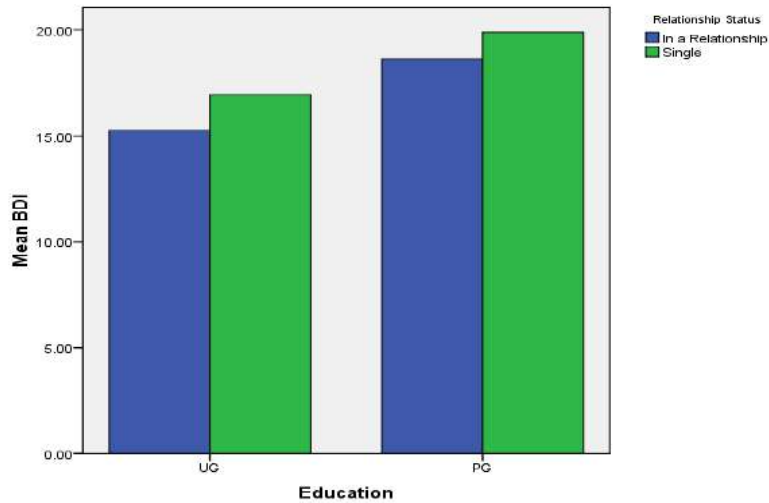


Figure 3: Average scores of BDI and the relationship status of the UG and PG students.

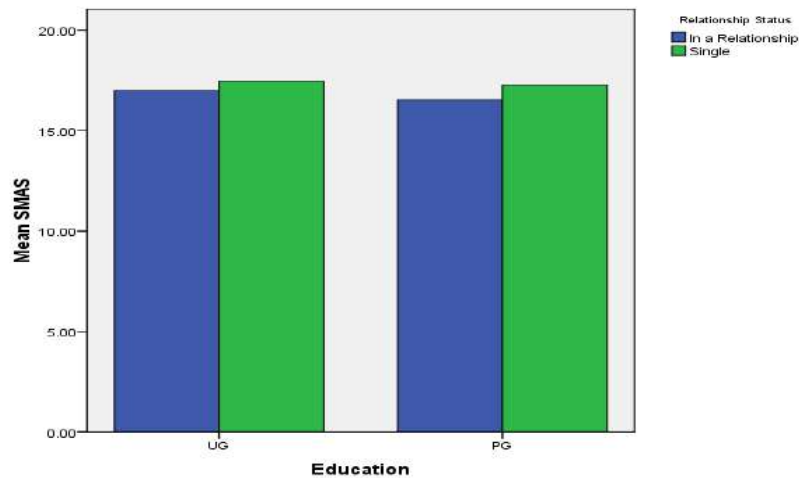


Figure 4: Average scores of SMAS and the relationship status of the UG and PG students.

From the analysis of the relationship status revealed that 52.7 % (n = 58) were In a Relationship and 47.3% (n = 52) were Single.

Investigation of Depression and Social Media Addiction in terms of gender (t-test).

	Male		Female		<i>df</i>	<i>t</i>	<i>p</i>	<i>Cohen's d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
BDI Scores	20.82	10.95	15.69	9.73	108	2.57	0.11	0.49

SMAS	17.08	4.87	16.98	4.23	108	.12	.90	.02
Scores								

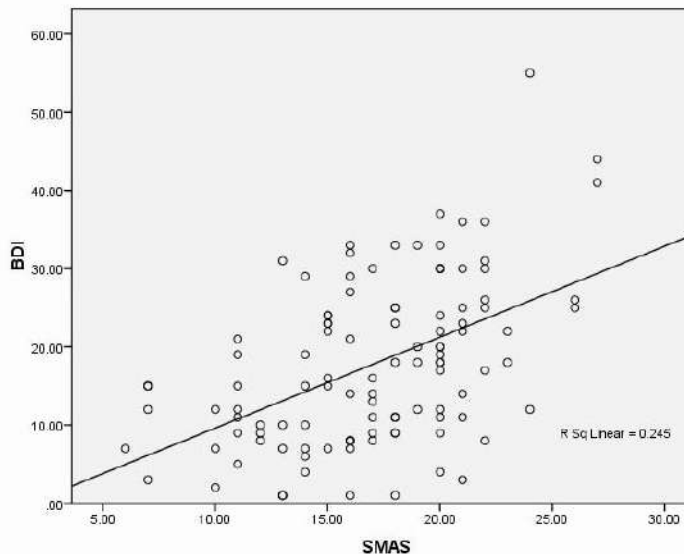
M = mean, SD = standard deviation. df = degree of freedom.

Table 2. Investigation of Depression and Social Media Addiction in terms of gender (t-test).

An independent t-test was conducted to determine whether there is a difference between the depression and social media addiction scores of male and female participants. Scores of male and female differ significantly in terms of depression, $t(108) = 2.57, p = 0.11, d = 0.49, 95\% \text{ CI} [1.183, 9.076]$. The mean for the male participants ($M = 20.82, SD = 10.95$) was significantly different than the female participants ($M = 15.69, SD = 9.73$). These findings support the idea that there is a difference between depression scores of the male and female participants. However the scores of male and female participants did not differ significantly in terms of social media addiction, $t(108) = 0.12, p = 0.90, d = 0.02, 95\% \text{ CI} [-1.63, 1.84]$. The mean for the male participants ($M = 17.08, SD = 4.87$) was not significantly different than the female participants ($M = 16.98, SD = 4.23$). These findings don't support the idea that there is a difference between social media addiction scores of the male and female participants.

Investigation of the relationship between social media and depression:

Figure1. Scatter plot of BDI scores and SMAS scores.



An inspection of a scatterplot suggested that there is a linear relationship between social media addiction and depression, and that the assumption of homoscedasticity was not violated.

Table 3. Correlation between social media addiction and depression.

	SMAS	BDI
SMAS	-	
BDI	.50**	-

Note: **Correlation is significant at the .01 level (two-tailed).

A Pearson's correlation analysis indicated that there was a significant positive correlation between depression and social media addiction scores, $r = .50$, $n = 110$, $p < .01$. It is concluded that there is a significant relationship between depression and social media use.

DISCUSSION

This study is an investigation on the relationship between social media use and depression and two scales were chosen, Social Media Addiction Scale (SMAS) and Beck's Depression Inventory (BDI) for the measurement of these two variables. In the study, the numerical distribution of the socio-demographic characteristics of the participants was examined. Accordingly 40.9% of the participants in the study were men ($n = 45$) and 59.1% were women ($n = 65$). The study was conducted on university students, 48.2% undergraduate students ($n = 53$) and 51.8% postgraduate students ($n = 57$). Participants in the current study are all regular users of social media. As a result of the correlation analysis, it was determined that there was a positive weak correlation between SMAS total score and the BDI total score $r = .50$ ($p < 0.01$). It was determined that 41.2% of the total participants use Whatsapp, 38.2% of the total participants use Instagram, 7.4% use twitter, another 7.4% use Facebook, 1.5% use Tumblr, another 1.5% use Youtube and finally 1.5% uses other apps such as Quora and Snapchat, this clearly shows that Whatsapp and Instagram are mostly used social media applications. Upon examination of the depression levels of the participants, 27.3% had normal ups and downs; 20.9% had mild mood disturbance; 13.6% had borderline clinical depression; 20% had moderate depression; 15.4% had severe depression and the rate of those with extreme level of depression are 2.7%.

These findings support the notion that people who used social media excessively scored highly for depression and had significant effects on their lives. People with underlying symptoms of depression such as anhedonia might find it easier to use social media and have interactions in social media than face-to-face connections due to the high ease of access of social media and the possibility of socialisation in a controlled setting (Morahan-Martin, J. and Schumacher, P, 2003). Individuals suffering from depression may be more likely to utilise social media. For instance, people with a low sense of self-worth tend to seek out social media connections. (Caplan, S. E. 2002).

This study doesn't reveal the exact connection between social media and depression and these two variables are connected in more than one way. An important task for future qualitative and quantitative research is to comprehensively assess the content and context

associated with social media. For example, time spent on social media may be spent primarily viewing profiles or being an active participant and these different uses may have different associations with mood states. In a study conducted by Balci and Ayhan in 2007, the factors affecting internet use of undergraduates are specified as a social escape but it was also pointed out information acquisition, recreation, economic benefit, social interaction, and entertainment were other reasons for internet use.

Furthermore, it's possible that social media interaction makes more active users feel more involved and gives them a sense of having more social capital (Ellison, N.B, et.al, 2007). Some people may be more prone to posting depressing status updates or engaging in confrontational discussions on social media, which can harm their interpersonal relationships and cause sadness. Social media material may also actively contribute to the development of depression (Forest & Wood, 2012). More research must be done to examine the link between social media addiction and depression. Solutions to assist people recover from addiction to social media and should encourage good social and personal relationships must also be explored.

CONCLUSION

The increased use of technology and social networking sites in everyday life plays a crucial role in technological addictions, which can lead to depression. This study shows that people with high social media addiction scores also had symptoms of depression. In other words, social media had a big place in their daily life and it affected their lives negatively. As the internet becomes an important part of people's lives, the dependence on social media is likely to increase gradually. Excessive use of social media leads to various psychological, physical and social risks and causes problems in the social functioning of an individual.

One of the primary causes of social media addiction is a lack of social support. In order to strengthen family dynamics, seminars, family therapy, and family group studies should be organized. Future studies and interventions will be significantly impacted by the positive correlation we discovered between social media and depression. For instance, longitudinal analysis will enhance both our comprehension of these correlations and our capacity to act. Social networking sites can also be effective resources for locating and helping those who are at the risk of developing depression.

REFERENCES

1. Nguyen, C. T. T., Yang, H.-J., Lee, G. T., Nguyen, L. T. K., & Kuo, S.-Y. (2021). Relationships of excessive internet use with depression, anxiety, and sleep quality among high school students in northern Vietnam. *Journal of Pediatric Nursing*. <https://doi.org/10.1016/j.pedn.2021.07.019>
2. Lin, L. yi, 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. <https://doi.org/10.1002/da.22466>

3. 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(40), 141–152. <https://doi.org/10.1016/j.ijinfomgt.2018.01.012>
4. Lin, C.-Y., Broström, A., Nilsen, P., Griffiths, M. D., & Pakpour, A. H. (2017). Psychometric validation of the Persian Bergen Social Media Addiction Scale using classic test theory and Rasch models. *Journal of Behavioral Addictions*, 6(4), 620–629. <https://doi.org/10.1556/2006.6.2017.071>
5. Shin, M., Juventin, M., Wai Chu, J. T., Manor, Y., & Kempes, E. (2022). Online media consumption and depression in young people: A systematic review and meta-analysis. *Computers in Human Behavior*, 128, 107129. <https://doi.org/10.1016/j.chb.2021.107129>
6. Yang, C., Holden, S. M., & Ariati, J. (2022). Social Media and Psychological Well-Being Among Youth: The Multidimensional Model of Social Media Use. *Key Topics in Behavioral Sciences*, 1–20. https://doi.org/10.1007/978-3-031-19918-9_1
7. Tung, S. E. H., Gan, W. Y., Chen, J.-S., Kamolthip, R., Pramukti, I., Nadhiroh, S. R., ... Griffiths, M. D. (2022). Internet-Related Instruments (Bergen Social Media Addiction Scale, Smartphone Application-Based Addiction Scale, Internet Gaming Disorder Scale-Short Form, and Nomophobia Questionnaire) and Their Associations with Distress among Malaysian University Students. *Healthcare*, 10(8), 1448. <https://doi.org/10.3390/healthcare10081448>
8. Kircaburun, K. (2016). Self-Esteem, Daily Internet Use and Social Media Addiction as Predictors of Depression among Turkish Adolescents. *Journal of Education and Practice*, 7(24), 64–72. Retrieved from <https://eric.ed.gov/?id=EJ1112856>
9. Sun, Y., & Zhang, Y. (2020). A Review of Theories and Models Applied in Studies of Social Media Addiction and Implications for Future Research. *Addictive Behaviors*, 114, 106699. <https://doi.org/10.1016/j.addbeh.2020.106699>
10. Forest, A. L., & Wood, J. V. (2012). When Social Networking Is Not Working. *Psychological Science*, 23(3), 295–302. <https://doi.org/10.1177/0956797611429709>
11. Sherman, L. E., Hernandez, L. M., Greenfield, P. M., & Dapretto, M. (2018). What the brain “Likes”: neural correlates of providing feedback on social media. *Social Cognitive and Affective Neuroscience*, 13(7), 699–707. <https://doi.org/10.1093/scan/nsy051>
12. Aydin, S., Koçak, O., Shaw, T. A., Buber, B., Akpınar, E. Z., & Younis, M. Z. (2021). Investigation of the Effect of Social Media Addiction on Adults with Depression. *Healthcare*, 9(4), 450. <https://doi.org/10.3390/healthcare9040450>
13. Haand, R., & Shuwang, Z. (2020). The relationship between social media addiction and depression: a quantitative study among university students in Khost, Afghanistan. *International Journal of Adolescence and Youth*, 25(1), 780–786. <https://doi.org/10.1080/02673843.2020.1741407>
14. SOCIAL MEDIA ADDICTION AND YOUNG PEOPLE: A SYSTEMATIC REVIEW OF LITERATURE. (2020). *Journal of Critical Reviews*, 7(13). <https://doi.org/10.31838/jcr.07.13.97>
15. Escobar-Viera, C. G., Whitfield, D. L., Wessel, C. B., Shensa, A., Sidani, J. E., Brown, A. L., ... Primack, B. A. (2018). For Better or for Worse? a Systematic Review of the Evidence on Social Media Use and Depression among Lesbian, Gay, and Bisexual Minorities. *JMIR Mental Health*, 5(3), e10496. <https://doi.org/10.2196/10496>

16. Jones, A., Hook, M., Podduturi, P., McKeen, H., Beitzell, E., & Liss, M. (2022). Mindfulness as a mediator in the relationship between social media engagement and depression in young adults. *Personality and Individual Differences*, 185, 111284. <https://doi.org/10.1016/j.paid.2021.111284>
17. Shin, M., Juventin, M., Wai Chu, J. T., Manor, Y., & Kemps, E. (2022). Online media consumption and depression in young people: A systematic review and meta-analysis. *Computers in Human Behavior*, 128, 107129. <https://doi.org/10.1016/j.chb.2021.107129>
18. Yang, C., Holden, S. M., & Ariati, J. (2021). Social Media and Psychological Well-Being Among Youth: The Multidimensional Model of Social Media Use. *Clinical Child and Family Psychology Review*, 24(3). <https://doi.org/10.1007/s10567-021-00359-z>
19. Mamun, M. A. A., & Griffiths, M. D. (2019). The association between Facebook addiction and depression: A pilot survey study among Bangladeshi students. *Psychiatry Research*, 271, 628–633. <https://doi.org/10.1016/j.psychres.2018.12.039>
20. Caplan, S. E. (2002). Problematic Internet use and psychosocial well-being: development of a theory-based cognitive-behavioral measurement instrument. *Computers in Human Behavior*, 18(5), 553–575. [https://doi.org/10.1016/s0747-5632\(02\)00004-3](https://doi.org/10.1016/s0747-5632(02)00004-3)
21. Morahan-Martin, J., & Schumacher, P. (2003). Loneliness and social uses of the Internet. *Computers in Human Behavior*, 19(6), 659–671. [https://doi.org/10.1016/s0747-5632\(03\)00040-2](https://doi.org/10.1016/s0747-5632(03)00040-2)
22. YOUNG, K. S., & ROGERS, R. C. (1998). The Relationship Between Depression and Internet Addiction. *CyberPsychology & Behavior*, 1(1), 25–28. <https://doi.org/10.1089/cpb.1998.1.25>
23. Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The Benefits of Facebook “Friends:” Social Capital and College Students’ Use of Online Social Network Sites. *Journal of Computer-Mediated Communication*, 12(4), 1143–1168. <https://doi.org/10.1111/j.1083-6101.2007.00367.x>
24. Kraut, R., Patterson, M., Lundmark, V., Kiesler, S., Mukophadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist*, 53(9), 1017–1031. <https://doi.org/10.1037//0003-066x.53.9.1017>
25. Meshi, D., Tamir, D. I., & Heekeren, H. R. (2015). The Emerging Neuroscience of Social Media. *Trends in Cognitive Sciences*, 19(12), 771–782. <https://doi.org/10.1016/j.tics.2015.09.004>
26. Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The Benefits of Facebook “Friends:” Social Capital and College Students’ Use of Online Social Network Sites. *Journal of Computer-Mediated Communication*, 12(4), 1143–1168. <https://doi.org/10.1111/j.1083-6101.2007.00367.x>

