# SOCIAL NETWORKING ADDICTION AND ITS REPERCUSSION ON SOMATIC- COGNITIVE-AFFECTIVE DEPRESSIVE SYMPTOMS AND SLEEP QUALITY AMONG EMERGING ADULTS

#### Abhishek Prasad \* and S. Kadhiravan \*\*

#### Background

Social networking sites (SNSs) are online communities where users can make public profiles of them, communicate with friends in real life, and connect with others who share their interests (Kuss & Griffiths, 2011). Analysis of consumer behaviour and empirical data on the pattern of internet consumption suggests that, overall, the frequency of social networking activity significantly increased over time (Patel, 2021). SNS addiction is described by Andreassen and Pallesen as "Overly worrying about SNSs, being driven to access or use SNSs, and investing so much time and energy in SNSs that they interfere with other social activities, academic or professional pursuits, interpersonal relationships, and/or psychological health and well-being" (Andreassen, 2015). According to Griffiths, an addiction can be operationally defined as any behaviour (such as social networking) that meets six requirements, which consists, "salience, mood alteration, tolerance, withdrawal symptoms, conflict, and relapse" are some of these elements (Griffiths et al., 2014).

## **Social Networking**

The term "addiction to social networking sites" refers to a person's mental obsession and excessive time commitment to them, until it becomes a hindrance to their participation in the activities of social interest, including work and other professional pursuits, personal relationships and health (Azizi et al., 2019). According to a survey, there are between 1.6% and 70% of Indians who are addicted to social media sites (Patel, 2021). An increasing number of people are using online social networking to preserve interpersonal relationships as a result of the internet's rapid advancement. This is especially true with youngsters. We Are Social (2022), research showed that social media has tremendous growth momentum and it is patently obvious that by the beginning of July 2020, there will be 1.25 billion teenagers using media platforms worldwide (Liu et al., 2022). Negative impact on mental health has been linked to problematic and excessive SNS usage. Studying depression

<sup>\*</sup> ICSSR Doctoral Research Fellow, Department of Psychology, Periyar University, Salem, TN.

<sup>\*\*</sup> Professor, Department of Psychology, Periyar University, Salem, TN.

brought on by SNS use is vital due to a large prevalence of depression and more than 350 million people of all ages are affected globally (Donnelly & Kuss, 2016). The World Health Organization (WHO, 2021) revealed that depression and mood disorders among young people have increased by 70%, despite the fact that the proportion of mental illness among 10 to 19-year-olds is estimated to be 1 in 7 (14%) across the globe. These conditions, however, go mostly undetected and untreated (Keles et al., 2020). SNS use has a detrimental impact on one's physical and psychological health and can lead to behavioural problems, depression, anxiety, and mania (Masthi et al., 2018), among other conditions (Wang, 2018).

## Social Networking and depressive symptoms

Depression is one of the most common mental health conditions in the world, especially among young individuals (Tang et al., 2017). The World Health Organization (WHO) estimates that more than 264 million people worldwide suffer from depression (Vidal et al., 2020). A negative impact on mental health has been linked to problematic SNS usage. A bio-psychosocial viewpoint can be used to understand a behavioral addiction like SNS addiction. Therefore, further study is required to comprehend the SNS use and depression in order to determine potential risk and susceptibility indicators (Sloman et al., 2003).

#### Social networking and sleep quality

The management of an individual's circadian clock determines their genetic chronotype, which is used to describe their predisposition to sleep at particular times of the day (Lin et al., 2021). Problematic sleep may arise as a result of poor self-control such as periods of sleep deprivation (Tandon et al., 2020). In addition to negatively affecting students' physical and mental health, inadequate sleep and daytime dysfunction might harm their academic performance (Hjetland et al., 2021). A young person's ability to process thoughts and emotions more effectively depends on their ability to get a good night's sleep, including sleep that is high quality, long enough, and efficient. Throughout developmental epochs, improved cognitive and emotional processing supports optimal social interaction and learning. Better physical, mental, and quality of life also linked to getting enough sleep (Lin et al., 2021).

#### **Current study**

Social networking sites are becoming more and more popular as a result of increased accessibility brought on by technological advancements and the widespread use of smartphones. However, in addition to using the Internet for functional purposes, the number of people suffering from the negative effects of excessive SNS use is growing exponentially.

As a result, there is an increasing interest in the issue known as Internet addiction (Wegmann et al., 2015). Since their launches in 2014 and 2017, approximately 1.52 billion active Facebook users have increased tremendously; the proliferation and popularity of social media have been accompanied with negative psychological effects (Smith & Short, 2022). Over past two decades, this field of study has gained importance due to studies that suggests a connection between general Internet use, including certain online behaviors, including engaging in video gaming activities, and specific psychiatric issues (Sternberg, 2023; Donnelly & Kuss, 2016).

Earlier studies looked into the relationship between social media consumption and individuals' psychological issues (including depressive episodes, nervousness, distress, isolation, low self-esteem) among people of all ages in developed nations ((Malaeb et al., 2021). There is not enough pertinent academic literature in developing nations like India, as a result, this study will make a contribution to find out the correlation among them (Malaeb et al., 2021; Dagher et al., 2021; Boursier et al., 2020; Bonsaksen et al., 2023). The objective of the study is to assess the severity of problems in order to identify the elements that contribute to addictive behaviour, depressive symptoms, and sleep quality.

## **Objectives:**

To study the percentage of social networking addicted students

2. To study the percentage of Facebook, Whatsapp, Instagram and YouTube addicted students

3. To the association between social networking addiction and cognitive, affective and somatic symptoms and sleep quality

4. To assess the negative repercussion on the study variable.

# METHOD

### Participants

The data was gathered offline using the incidental sampling method. A 40-item selfadministered questionnaire was given to (n=421) degree college students using incidental sampling. The participants were 304 (72.2%) male and 117 (27.8%) female final-year degree students, ranging in age from 18 to 29 i.e. (18-22 n=159, 37.8%, 23-26 n=238, 56.55%, 27-29, n=24, 5.7%). Anonymity was ensured during the whole process of collection of data and analysis. The study variables were examined using the Pearson correlation co-efficient, simple linear regression analysis.

# Measures

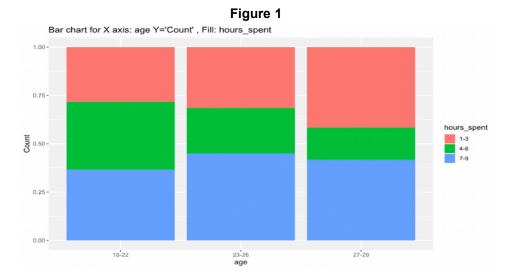
## Socio-demographic characteristics

Age, gender, including the type of social media used, the media consumption were considered for assessment.

Social Networking Usage Questionnaire (SNU) (Gupta & Bashir, 2018), which comprises of 19 items, was used to quantify social networking usage. Cronbach's alpha was ?=.830, and the items were assessed on a five-point scale (1 = never, 5 = always).

Sleep Quality Scale (SQS) (Yi H et al., 2006), which comprises of 28 items was used to measure the quality of sleep. Prior to adding together, scores for item components 2 and 5 were reversed and Cronbach's alpha coefficient ( $\alpha$  =0.92) demonstrated excellent reliability.

Beck's Depression Inventory (BDI) A rating assessment of 21 elements from a selfreport it rates normal attitudes and depressed symptoms. The BDI's internal consistency has a mean of 0.86 and a range of 0.73 to 0.92. The 13-item abridged version has shown comparable dependability results. The BDI's internal consistency has a mean of 0.86 and a range of 0.73 to 0.92. The 13-item abridged version has shown comparable dependability results.



#### RESULTS

Figure 1 shows the comparison of bar chart based on age and hours spent using social media i.e., 7-9 and above hours and SNU variables.

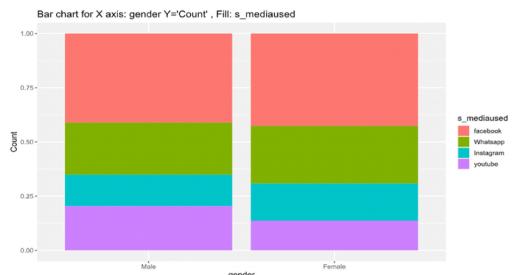


Figure 2

Figure 2 shows the comparison of bar chart based on age and hours spent using social media i.e., 7-9 and above hours and SNU variables.

Figurers 1 and 2 show that how sub-categories of SNU i.e., academic, socialization, entertainment, information vary based on the number of hours spent in using social media i.e., 1-3, 4-6, and 7-9 and age, i.e., 18-22, 23-26, 27-29 respectively. There is a steady fluctuation based on the duration people spend using their media platform when they use social media, and people who use it more than 7-9 hours engage in it for entertainment purposes.

Table 1 Pearson's correlation co-efficient among academic, socialization, entertainment, information, depression, cognitive, affective, somatic, & difficulty in falling asleep

Model	Cognitive	Affective	Somatic	Difficulty in falling asleep
Academics	.375**	.301**	.189**	.395**
Socialization	.441**	.369**	.162**	.294**
Entertainment	.335**	.176**	.145**	.242**
Informativeness	.515**	.353**	.208**	.344**

Note: \*\*- p<0.001.

The Pearson correlation coefficient between academic performance, social interaction, entertainment, educational value, depression (cognitive, emotional, and physical symptoms), and difficulties falling asleep is shown in Table 1. Each social networking usage domain in the table has a positive correlation and is significant. Academic performance has a marginally significant (p>0.05). The correlation between cognitive function and sleep quality, i.e., .375,

.301, .189 and .395 respectively. The same is true for entertainment, socialization, and information, all of which have demonstrated a weak but significant correlation at the 0.05 level.

Model	$R^2$	F	Significance	-β	't' value	Sig	
Academics	.343	54.339	.000	.185	3.696	$.000^{*}$	
Socialization				.131	1.894	.294	
Entertainment				.038	.681	.094	
Informativeness				.285	4.587	.566	

 Table 2

 Displays multiple linear regression results to identify cognitive symptoms

Note: Dependent variable cognitive symptoms\*-p < 0.001.

The table's R2 value, which signifies that independent factors can predict 34% of the total covariance, brought on by the dependent variable, in this case, cognitive deficiencies, shows that the model is statistically fit, as shown by the substantial "f" value of 54.33. They were expected to rise by.185,.131,.038, and.285 for every unit increase in the SNU variable, correspondingly.

Table 3

# Multiple regression to find out actual predictors from social networking usage to determine affective symptoms

Model	$R^2$	F	Significance	-β	't' value	Sig
Academics	.197	25.447	.000	.135	1.772	.000*
Socialization				.057	.920	.369
Entertainment				.133	1.940	.089
Informativeness				.260	2.118	$.010^{*}$

Note: Dependent variable affective symptoms \*-p<0.001.

The table shows that the independent variable's sub-scales of academic and information are statistically significant at the p<0.001 and further account for 0.19% of the variance experienced by the dependent variable, or 19% affective symptoms. For each unit increase in the SNU variable, they were projected to increase by.135,.057,.133, and.260, respectively.

## Table 4

# Multiple regression to find out the actual predictors to determine somatic symptoms

Symptome							
Model	$R^2$	F	Significance	-β	't' value	Sig	
Academics	.064	7.110	.000	2.194	3.107	.002*	
Socialization				.044	3.870	$.000^{*}$	
Entertainment				.006	2.412	.017*	
Informativeness				.067	3862	$.000^{*}$	

Note: Dependent variable somatic symptoms \* - p<0.001.

Table shows that variable predicted 64% of the covariance, and the 'f' value, which has a progressive increase with each unit, is 7.11. For each unit increase in the independent variable, they were projected to amplify by 2.194, .004, .006, and .067, respectively.

Table 5
Multiple regression to find out the actual predictors to determine sleep quality

Model	$R^2$	F	Significance	-β	't' value	Sig
Academics	.215	28.473	.000	.191	3.688	.000*
Socialization				.152	.931	.369
Entertainment				.075	1.698	.077
Informativeness				.003	2.112	.010*

Note: Dependent variable sleep quality\*-p<0.05.

According to the table's R2 score value, independent variables forecasted 21% of the overall variance brought on by the dependent variable. The substantial "f" value=28.47 demonstrates model fit, and the predictors included in the model are statistically significant. It was projected that they will increase by.191, .152, .075, and.003.

# DISCUSSION

The present study assessed the association between SNU, depressive symptoms, and sleep quality related to 421 college students in their final year of study. Their attitudes regarding social media are inconsistent with their behaviour, which indeed a major health concern. They may also suffer from addiction, depression, or other disorders.

The findings of this study were in line with the study done by Ramadan (2023). SNU, which includes academic, socializing, entertainment, and information, varies based on media consumption hours, i.e., 1-3, 4-6, and 7-9 hrs per day. While the majority of studies found substantial gender differences in social networking addiction, Ragona et al. (2023), Oliveira et al., and some studies did not (2023). According to De Doncker & McLean (2022) analysis, men were significantly more likely than women. The frequency of daily cognitive

failures, SNS dependence, and sleep quality were all examined in the study. Increased SNS dependency was linked to worse sleep and more cognitive errors during the day. These findings corroborated other research (Liu & Jiang, 2023; Morbée et al., 2023) that discovered a strong association among study variables.

# CONCLUSION

SNS addiction is a common issue among aspiring emerging young adults. Using of social media over most of the day, including the classroom setting, spending more time and money, and beginning SNS use at a young age are some key factors associated with SNS addiction. High levels of depressive symptoms and insomnia among young adults, as important indicators of SNS addiction. The findings provide insights to health care professionals, particularly in light of the dearth of local undergraduate research on social networking addiction.

#### **Future Implications**

A foundation course in the form of a training workshop about inappropriate social media use ought to be offered to young adults. The prevalence and severity of addiction in emerging adults are also covered in this study. It is imperative that decision-makers in the fields of social psychiatry and health care develop novel strategies to deal with this issue.

## ACKNOWLEDGEMENT

Abhishek Prasad is a recipient of Indian Council of Social Science Research Doctoral Fellowship (ICSSR), Government of India (File No. RFD/2022-23/SC/PSY/53). His article is largely an outcome of his doctoral work sponsored by ICSSR. However, the responsibility for the facts stated, opinions expressed and the conclusions drawn is entirely that of the author.

## **References:**

- Andreassen, C. S. Online social network site addiction: A comprehensive review. Current Addiction Reports, vol.2, no. 2, 2015, pp.175-184. https://doi.org/10.1007/ s40429-015-0056-9
- Azizi, S. M., Soroush, A., & Khatony, A. (2019). The relationship between social networking addiction and academic performance in Iranian students of medical sciences: A cross-sectional study. BMC Psychology, vol. 7 no.1, 2019, pp.28. https:// /doi.org/10.1186/s40359-019-0305-0
- Bonsaksen, T., Ruffolo, M., Price, D., Leung, J., Thygesen, H., Lamph, G., Kabelenga, I., & Geirdal, A. Ø. Associations between social media use and loneliness in a crossnational population: Do motives for social media use matter? Health Psychology and

BehavioralMedicine, vol.11, no.1, 2023, pp.2158089. https://doi.org/10.1080/ 21642850.2022.2158089

- Boursier, V., Gioia, F., Musetti, A., & Schimmenti, A. Facing loneliness and anxiety during the COVID-19 isolation: The role of excessive social media use in a sample of Italian adults. Frontiers in Psychiatry, vol.11, 2020, pp.586222. https://doi.org/10.3389/ fpsyt.2020.586222
- Dagher, M., Farchakh, Y., Barbar, S., Haddad, C., Akel, M., Hallit, S., & Obeid, S. Association between problematic social media use and memory performance in a sample of Lebanese adults: The mediating effect of anxiety, depression, stress and insomnia. Head and Face Medicine, vol.17, no.1, 2021, pp.6. https://doi.org/10.1186/ s13005-021-00260-8
- De Doncker, K., & McLean, N. Social media, sleep difficulties and depressive symptoms: A case study of South African youth in Cape Town. Technology in Society, vol.70, 2022, pp.102038. https://doi.org/10.1016/j.techsoc.2022.102038
- DONNELLY, E. and KUSS, D.J. Depression among users of social networking sites (SNSs): the role of SNS addiction and increased usage. Journal of Addiction and Preventive Medicine, vol.1, no. 2, 2016, pp.107.
- Griffiths, M. D. Social networking addiction: Emerging themes and issues. Journal of Addiction Research and Therapy, vol.4, no.5, 2013. https://doi.org10.4172/2155-6105.1000e118
- 9. Griffiths, M. D., Kuss, D. J., & Demetrovics, Z. Social networking addiction: An overview of preliminary findings. Behavioral Addictions, 2014, pp.119-141.
- Hjetland, G. J., Skogen, J. C., Hysing, M., & Sivertsen, B. The association between self-reported screen time, social media addiction, and sleep among Norwegian University students. Frontiers in Public Health, vol. 9, 2021, pp.794307. https://doi.org/ 10.3389/fpubh.2021.794307
- Keles, B., McCrae, N., & Grealish, A. A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents. International Journal of Adolescence and Youth, vol.25, no.1, 2020, pp.79-93. https://doi.org/ 10.1080/02673843.2019.1590851
- Kuss, D. J., & Griffiths, M. D. Online social networking and addiction-A review of the psychological literature. International Journal of Environmental Research and Public Health, vol.8, no.9, 2011, pp.3528-3552. https://doi.org/10.3390/ijerph8093528

- Kuss, D. J., Griffiths, M. D., & Binder, J. F. Internet addiction in students: Prevalence and risk factors. Computers in Human Behavior, vol.29, no.3, 2013, pp.959-966. https:// /doi.org/10.1016/j.chb.2012.12.024
- Lin, C. Y., Imani, V., Griffiths, M. D., Broström, A., Nygårdh, A., Demetrovics, Z., & Pakpour, A. H. Temporal associations between morningness/eveningness, problematic social media use, psychological distress and daytime sleepiness: Mediated roles of sleep quality and insomnia among young adults. Journal of Sleep Research, vol.30, no.1 2021, pp.13076. https://doi.org/10.1111/jsr.13076
- Lin, C. Y., Potenza, M. N., Ulander, M., Broström, A., Ohayon, M. M., Chattu, V. K., & Pakpour, A. H. Longitudinal relationships between nomophobia, addictive use of social media, and insomnia in adolescents. In Healthcare (Vol. 9, No. 9, 2021, pp. 1201). MDPI, 9(9). https://doi.org/10.3390/healthcare9091201
- Liu, Q., Hu, Q., & Qi, D. Online psychological need satisfaction and social networking addiction: A longitudinal study among Chinese adolescents. Child and Adolescent Social Work Journal, 2022, pp.1-15. https://doi.org/10.1007/s10560-021-00814-4
- Liu, Y., Yi, H., & Jiang, C. (2023). Enjoyment or indulgence? Social media service usage, social gratification, self-control failure and emotional health. International Journal of Environmental Research and Public Health, vol. 20, no.2, 2023, pp.1002. https:// doi.org/10.3390/ijerph20021002
- Malaeb, D., Salameh, P., Barbar, S., Awad, E., Haddad, C., Hallit, R., Sacre, H., Akel, M., Obeid, S., & Hallit, S. Problematic social media use and mental health (depression, anxiety, and insomnia) among Lebanese adults: Any mediating effect of stress? Perspectives in Psychiatric Care, vol.57, no.2, 2021, pp. 539-549. https:// doi.org/10.1111/ppc.12576
- Ramesh Masthi, N. R., Pruthvi, S., & Phaneendra, M. S. (2018). A comparative study on social media usage and health status among students studying in pre-university colleges of urban Bengaluru. Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive and Social Medicine, vol.43, no.3,2018, pp.180-184. https://doi.org/10.4103/ijcm.IJCM\_285\_17
- Morbée, S., Beeckman, M., Loeys, T., Waterschoot, J., Cardon, G., Haerens, L., & Vansteenkiste, M. An examination of the reciprocal associations between physical activity and anxiety, depressive symptoms, and sleep quality during the first 9 weeks of the COVID-19 pandemic in Belgium. Mental Health and Physical Activity, vol.24, 2023,pp. 100500. https://doi.org/10.1016/j.mhpa.2022.100500

- Oliveira, A. P., Nobre, J. R., Luis, H., Luis, L. S., Pinho, L. G., Albacar-Riobóo, N., & Sequeira, C. (2022). Social media use and its association with mental health and Internet addiction among Portuguese higher education students during COVID-19 confinement. International Journal of Environmental Research and Public Health, vol.20, no.1, 2022, pp. 664. https://doi.org/10.3390/ijerph20010664
- Patel, V. K., Chaudhary, P., Kumar, P., Vasavada, D. A., & Tiwari, D. S. A study of correlates of social networking site addiction among the undergraduate health professionals. Asian Journal of Social Health and Behavior, vol.4, no.1, 2021, pp.30. https://doi.org/10.4103/shb.shb\_1\_21
- Ragona, A., Mesce, M., Cimino, S., & Cerniglia, L. Motivations, behaviors and expectancies of sexting: The role of defensive strategies and social media addiction in a sample of adolescents. International Journal of Environmental Research and Public Health, vol.20, no.3, 2023, pp.1805. https://doi.org/10.3390/ijerph20031805
- Ramadan, A. R. The Relationship between Social Media use and Depression Symptoms in Jazan region in the Point of View of the Social Work Profession. Egyptian JournalofSocialWork, vol.15,no.1,2023,pp.39-56. https://doi.org/10.21608/ ejsw.2023.185791.1175
- Andreassen, C. S., & Pallesen, S. Social network site addiction-an overview. Current Pharmaceutical Design, vol.20, no.25, 2014, pp.4053-4061. https://doi.org/10.2174/ 13816128113199990616
- Sloman, L., Gilbert, P., & Hasey, G. Evolved mechanisms in depression: The role and interaction of attachment and social rank in depression. Journal of Affective Disorders, vol.74, no.2, 2003, pp.107-121. https://doi.org/10.1016/s0165-0327(02)00116-7
- Smith, T., & Short, A. (2022). Needs affordance as a key factor in likelihood of problematic social media use: Validation, latent Profile analysis and comparison of TikTok and Facebook problematic use measures. Addictive Behaviors, vol.129,2022, pp.107259. https://doi.org/10.1016/j.addbeh.2022.107259
- Sternberg, R. J. Toxic giftedness. Roeper Review, vol.45, no.1, 2023, pp. 61-73. https://doi.org/10.1080/02783193.2022.2148311
- Tandon, A., Kaur, P., Dhir, A., & Mäntymäki, M.Sleepless due to social media? Investigating problematic sleep due to social media and social media sleep hygiene. Computers in Human Behavior, vol.113, 2020, pp.106487. https://doi.org/10.1016/ j.chb.2020.106487

- Tang, C. S. K., & Koh, Y. Y. W. Online social networking addiction among college students in Singapore: Comorbidity with behavioral addiction and affective disorder. Asian Journal of Psychiatry, vol.25,2017,pp. 175-178. https://doi.org/10.1016/ j.ajp.2016.10.027
- Vidal, C., Lhaksampa, T., Miller, L., & Platt, R. Social media use and depression in adolescents: A scoping review. International Review of Psychiatry, vol.32, no.3,2020,pp. 235-253. https://doi.org/10.1080/09540261.2020.1720623
- Wang, P., Wang, X., Wu, Y., Xie, X., Wang, X., Zhao, F., Ouyang, M., & Lei, L.Social networking sites addiction and adolescent depression: A moderated mediation model of rumination and self-esteem. Personality and Individual Differences, vol.127, 2018, pp.162-167. https://doi.org/10.1016/j.paid.2018.02.008
- Wegmann, E., Stodt, B., & Brand, M. (2015). Addictive use of social networking sites can be explained by the interaction of Internet use expectancies, Internet literacy, and psychopathological symptoms. Journal of Behavioral Addictions, vol.4, no.3, 2015, pp.155-162. https://doi.org/10.1556/2006.4.2015.021