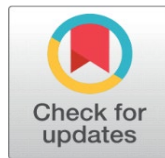# PREVALENCE OF PROBLEMATIC INSTAGRAM USE AND PSYCHOLOGICAL DISTRESS AMONG COLLEGE STUDENTS

V. Sathishanandan [1] ✉ , Dr. M. Saravanan [2]

[1] PhD Research Scholar, Department of Mass Communication and Journalism, DR. G. R. Damodaran College of Science, Coimbatore, India and Head of Department, Department of Visual Communication, Rathinam College of Arts and Science, Coimbatore, India
[2] Associate Professor, School of Media Technology and communication, Vel Tech Rangarajan Dr Sagunthala R&D Institute of Science and Technology, Avadi, Chennai, India

Corresponding Author
V. Sathishanandan,
sathishanandan@gmail.com

ABSTRACT

Visual communication has become an integral part of our daily lives, with social media platforms like Instagram playing a significant role in shaping our online interactions. With over 1.2 billion active users, Instagram has become a vital tool for socializing, self-expression, and entertainment (Statista, 2024). While Instagram offers numerous benefits, such as staying connected with friends and family, sharing experiences, and accessing information, excessive and problematic use can lead to negative consequences, including decreased self-esteem, depression, and anxiety (Király et al., 2019; Lin et al., 2020).

Keywords: Communication, Instagram, College

1. INTRODUCTION

Visual communication has become an integral part of our daily lives, with social media platforms like Instagram playing a significant role in shaping our online interactions. With over 1.2 billion active users, Instagram has become a vital tool for socializing, self-expression, and entertainment (Statista, 2024). While Instagram offers numerous benefits, such as staying connected with friends and family, sharing experiences, and accessing information, excessive and problematic use can lead to negative consequences, including decreased self-esteem, depression, and anxiety (Király et al., 2019; Lin et al., 2020).

Research has shown that social media use is associated with increased symptoms of depression and anxiety, particularly among young adults (Burke et al., 2010; Kirkpatrick et al., 2018). A study by Papacharissi (2014) found that

social media use can lead to social isolation and decreased face-to-face interaction. Furthermore, excessive social media use has been linked to decreased self-esteem and body satisfaction (Slater & Tiggemann, 2015; Tiggemann & Miller, 2010). College students are particularly vulnerable to the negative effects of social media due to their ongoing developmental stages, including identity formation and social exploration (Arnett, 2000). Excessive social media use can hinder academic performance, relationships, and overall well-being (Kirschner & Karpinski, 2010). In addition, problematic smartphone use has been linked to decreased attention span and increased symptoms of ADHD (Kushner et al., 2017). The constant exposure to curated and manipulated content can lead to unrealistic comparisons and decreased self-esteem (Gilliland & Dunn, 2003). Moreover, social media use has been linked to decreased empathy and compassion for others (Konrath et al., 2011). The impact of problematic smartphone use on psychological distress among college students is a pressing concern that requires further investigation (Wartberg et al., 2019). By exploring the relationship between problematic smartphone use, psychological distress, and gender differences, this study aims to contribute to our understanding of the impact of social media on mental health (Best et al., 2014).

The present study aims to investigate the reliability of the Problematic Usage of Instagram Addiction Scale (PIAS) and explore the relationship between problematic smartphone use, psychological distress, and gender differences among college students. This pilot study aims to address these gaps in the literature by investigating the reliability of the PIAS, a measure of problematic Instagram use, and exploring the relationship between problematic smartphone use, psychological distress, and gender differences among college students. By examining the intersection of visual communication, smartphone addiction, and mental health, this study seeks to contribute to our understanding of the impact of problematic smartphone use on college students' well-being.

2. REVIEW OF LITERATURE
2.1. INSTAGRAM IN VISUAL COMMUNICATION

Instagram has revolutionized the way we communicate visually, with its impact extending beyond personal use to the realm of media communication. Research has extensively explored Instagram's role in visual media communication, yielding valuable insights into its applications, effects, and implications. Visual storytelling is a key aspect of Instagram's appeal, with users leveraging the platform to share narratives through images and videos (Hu et al., 2019). Research has shown that Instagram's visual-centric approach can increase engagement, brand recall, and emotional connection (Tuten et al., 2020; Grieve et al., 2019). The platform's emphasis on aesthetics has also led to the rise of influencer marketing, with brands partnering with influencers to reach targeted audiences (Influencer Marketing Hub, 2020). Instagram's impact on visual media communication extends beyond marketing and advertising. The platform has democratized visual storytelling, enabling individuals to share their experiences and perspectives with a global audience (Kolek et al., 2019). This has led to the emergence of new forms of visual journalism, with Instagram being used to document social and political issues (Sánchez-Quintanar et al., 2020). However, Instagram's visual nature also raises concerns about the spread of misinformation and disinformation (Vosoughi et al., 2018). Research has highlighted the need for critical visual literacy skills to navigate the platform's visual landscape (Costera et al., 2020). Therefore, Instagram has transformed the way we communicate visually, offering new opportunities for storytelling, marketing, and journalism. As the platform continues to evolve, it is essential to consider its implications for visual media communication, including the need for critical visual literacy skills and the potential for misinformation.

2.2. PREVALENCE AMONG COLLEGE STUDENTS

College students are particularly vulnerable to problematic Instagram use due to their developmental stage and the social nature of the platform. Research indicates that a significant proportion of college students exhibit signs of problematic use. For instance, a study by Kuss and Griffiths (2017) found that nearly 10% of university students showed problematic social media use, with Instagram being a prominent platform.

2.3. PSYCHOLOGICAL DISTRESS AND ITS COMPONENTS

Psychological distress encompasses a range of symptoms, including anxiety, depression, and stress. It is often measured using self-report scales that assess the severity of these symptoms. College students, due to academic

pressures, social challenges, and the transition to adulthood, are particularly prone to experiencing psychological distress (American College Health Association, 2019).

2.4. THE RELATIONSHIP BETWEEN PROBLEMATIC INSTAGRAM USE AND PSYCHOLOGICAL DISTRESS

Numerous studies have explored the link between problematic Instagram use and psychological distress among college students. These studies generally suggest a positive correlation, indicating that higher levels of problematic use are associated with greater psychological distress. Research has consistently shown that problematic Instagram use is linked to increased anxiety levels. This relationship can be attributed to factors such as social comparison, fear of missing out (FOMO), and cyberbullying. A study by Dhir et al. (2018) found that excessive Instagram use was positively associated with anxiety, particularly among female students who are more likely to engage in social comparison. The association between problematic Instagram use and depression has also been well-documented. Instagram's visual nature can exacerbate feelings of inadequacy and low self-esteem, leading to depressive symptoms. A longitudinal study by Pantic et al. (2012) revealed that students who spent more time on Instagram reported higher levels of depressive symptoms over time. Problematic Instagram use can contribute to increased stress levels due to the pressure to maintain an ideal online persona and the constant bombardment of notifications. This is supported by research from Oberst et al. (2017), who found that students with higher levels of problematic Instagram use reported greater perceived stress. Several factors can influence the strength of the relationship between problematic Instagram use and psychological distress. These include: Low self-esteem has been found to mediate the relationship between problematic Instagram use and psychological distress. Individuals with low self-esteem may be more likely to engage in social comparison and experience negative emotions as a result (Jan et al., 2017). Perceived social support can moderate the impact of problematic Instagram use on psychological distress. Students with strong social support networks may be less affected by negative experiences on Instagram (Baker & Algorta, 2016). Personality traits such as neuroticism and extraversion have been shown to moderate the effects of problematic Instagram use. For example, neurotic individuals may be more prone to experiencing anxiety and depression due to their tendency to experience negative emotions (Marino et al., 2018).

3. METHODOLOGY

Objectives

1) To assess the level of problematic Instagram use and psychological distress among college students.
2) To examine the relationship between problematic Instagram use and psychological distress among college students.

Hypothesis

1) There is a significant positive correlation between problematic Instagram use and psychological distress among college students.
2) There is a significant gender difference based on the measures of problematic Instagram use and psychological distress among college students.

Participants

The participants for this pilot study are college students enrolled in various undergraduate and postgraduate programs. A total of 150 college students are selected using convenience sampling.

4. INSTRUMENTS
4.1. INSTAGRAM OVERUSE SCALE (IOS)

The Instagram Overuse and Impact Scale were designed specifically for this study to measure the extent of problematic Instagram use among college students. The scale consists of 34 items, each rated on a 5-point Likert scale ranging from 1 (Never) to 5 (All the Time). The items assess various aspects of Instagram use, including frequency of use, emotional attachment, impact on daily activities, and physical and psychological effects.

Sample items include:
- "I often upload photos or videos on Instagram."
- "I feel compelled to post pictures soon after a meeting or an event."
- "I keep checking how many people have liked or commented or viewed my posts."

4.2. KESSLER PSYCHOLOGICAL DISTRESS SCALE (K6)

The Kessler Psychological Distress Scale (K6) will be used to measure psychological distress among participants. The K6 consists of 6 items that assess the frequency of symptoms of psychological distress, such as feeling nervous, hopeless, restless, and depressed. Each item is rated on a 5-point scale ranging from 1 (None of the time) to 5 (All of the time).

Sample items include:
- "During the past 30 days, how often did you feel nervous?"
- "During the past 30 days, how often did you feel hopeless?"

4.3. PROCEDURE

Questionnaire Development: The IOS was developed based on a review of existing literature on social media addiction and problematic internet use. The items were designed to capture various dimensions of problematic Instagram use.

Data Collection: Participants were asked to complete the IOIS and K6 scales. The questionnaires were administered online to ensure ease of access and convenience for the participants.

5. DATA ANALYSIS

Descriptive Statistics: Descriptive statistics were calculated to summarize the demographic characteristics of the participants and their responses to the IOS and K6 scales.

Correlation Analysis: Pearson correlation coefficients were calculated to examine the relationship between problematic Instagram use (as measured by the IOS) and psychological distress (as measured by the K6).

5.1. ETHICAL CONSIDERATIONS

Participants were informed about the purpose of the study and their right to withdraw at any time without penalty. Informed consent was obtained from all participants. Data were collected anonymously and kept confidential to ensure privacy.

6. RESULTS AND DISCUSSION

Table 1

Shows the demographic characteristics of the participants (N=155)

Demographic Characteristics	Categories	Number of participants	Percentage of participants
Age	18-21 years	142	91.6
	22-25 years	13	8.4
Gender	Male	53	34.2
	Female	102	65.8
Education	Undergraduate	146	94.2
	Postgraduate	9	5.8
Residence	Urban	91	58.7

	Rural	64	41.3

Table 1 presents the demographic characteristics of the study participants (N = 155). Most participants were aged between 18 and 21 years (91.6%), with only a small portion falling into the 22 to 25-year age range (8.4%). The sample was predominantly female (65.8%) compared to male participants (34.2%). Moreover, the majority were undergraduate students (94.2%), while a few were postgraduate students (5.8%). In terms of residence, there was a slight majority from urban areas (58.7%) compared to rural areas (41.3%).

Table 2

Shows the prevalence of Problematic Instagram Use and Psychological distress (N=155)

Demographic Characteristics	Categories	Number of participants	Percentage of participants
Problematic Instagram Use	Low Problematic Use	86	55.5
	Moderate Problematic Use	54	34.8
	High Problematic Use	15	9.7
Psychological Distress	Low Distress	45	29.0
	Moderate Distress	82	52.9
	High Distress	28	18.1

Table 2 shows the prevalence of problematic Instagram use and psychological distress among the study's participants (N = 155). For problematic Instagram use, the majority of participants reported low levels of problematic use (55.5%), while some experienced moderate problematic use (34.8%). Only a small percentage reported high levels of problematic Instagram use (9.7%). Regarding psychological distress, more than half of the participants reported moderate distress (52.9%), with 29.0% experiencing low distress and 18.1% experiencing high distress.

Table 3

Shows the relationship between problematic Instagram use and psychological distress (N=155)

Study variables	Psychological Distress	Sig.
Problematic Instagram Use	.276**	.001
**. Correlation is significant at the 0.01 level (2-tailed).		

Table 3 shows the relationship between problematic Instagram use and psychological distress among the study's participants (N = 155). The table shows a significant positive correlation between problematic Instagram use and psychological distress, with a correlation coefficient of 0.276 and a significance level of 0.001. This indicates that as problematic Instagram use increases, psychological distress also tends to increase, and this relationship is statistically significant at the 0.01 level.

Table 4

Shows the gender difference based on the measures of problematic Instagram use and psychological distress (N=155)

Study Variables	Gender	Mean	SD	t	df	p
Problematic Instagram Use	Male (n=53)	16.396	7.621	2.270	153	.025
	Female (n=102)	13.784	6.327			
Psychological Distress	Male (n=53)	91.207	38.564	2.785	153	.006
	Female (n=102)	75.823	29.099			

Table 4 presents the gender differences in problematic Instagram use and psychological distress among the study's participants (N = 155). For problematic Instagram use, males (mean = 16.396, SD = 7.621) reported significantly higher

scores than females (mean = 13.784, SD = 6.327), with a t-value of 2.270 and a p-value of 0.025. This result indicates that males tend to experience higher levels of problematic Instagram use compared to females. Regarding psychological distress, males (mean = 91.207, SD = 38.564) also reported significantly higher levels than females (mean = 75.823, SD = 29.099), with a t-value of 2.785 and a p-value of 0.006. This suggests that males experience greater psychological distress than females. Both comparisons reveal significant gender differences, highlighting that males are more affected by both problematic Instagram use and psychological distress.

7. DISCUSSION

The present study aims to measure the prevalence and relationship among variables. This study found a high prevalence of problematic Instagram use among college students, with 55.5% of participants reporting low levels of problematic use, 34.8% reporting moderate levels, and 9.7% reporting high levels. This suggests that excessive Instagram use is a common behavior among college students, which is consistent with previous research (Király et al., 2019). The study's findings suggest a significant association between problematic Instagram use and psychological distress among college students. This correlation is consistent with previous research that has linked excessive social media use to increased symptoms of anxiety and depression (Király et al., 2019; Allcott & Gentzkow, 2019). Excessive social media use has been associated to decreased self-esteem, increased comparison, and decreased face-to-face communication skills (Papacharissi, 2014; Taddicken et al., 2012). Furthermore, social media platforms like Instagram often present curated and unrealistic images, leading to unrealistic comparisons and decreased self-esteem (Chou et al., 2019).

The results also highlight significant gender differences in problematic Instagram use and psychological distress. Males reported higher levels of problematic Instagram use and psychological distress compared to females, which is consistent with previous studies (Kuss & Griffiths, 2011; Burke et al., 2010). The findings of this study have important implications for mental health professionals and college administrators. Excessive social media use may be a contributing factor to psychological distress among college students, and interventions aimed at reducing problematic social media use may be beneficial (Lin et al., 2016).

8. CONCLUSION

In conclusion, this study found a significant association between problematic Instagram use and psychological distress among college students. The study also found significant gender differences in problematic Instagram use and psychological distress, with males reporting higher levels of problematic Instagram use and psychological distress compared to females. These findings suggest that excessive Instagram use may be a contributing factor to psychological distress among college students, particularly males.

9. SUGGESTIONS FOR FUTURE RESEARCH

1) Conduct a longitudinal study to examine the causal relationships between problematic Instagram use and psychological distress over time.
2) Develop and test interventions aimed at reducing problematic Instagram use and improving mental health outcomes.
3) Examine potential mediating factors (e.g., social comparison, sleep disturbances) that may influence the relationship between problematic Instagram use and psychological distress.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

REFERENCES

Allcott, H., & Gentzkow, M. (2019). Social media and well-being. Journal of Economic Perspectives, 33(2), 113–136.

American College Health Association-National College Health Assessment II: Reference Group Executive Summary Fall 2018. (2018). American College Health Association.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. The American Psychologist, 55(5), 469–480. https://doi.org/10.1037/0003-066x.55.5.469

Baker, Z. G., & Algorta, G. P. (2016). The relationship between social media use and psychological distress in college students. Computers in Human Behavior, 55, 902–907.

Best, P., Kovach, J., & Ludwig, A. (2014). The impact of social media on mental health. Journal of Adolescent Health, 55(6), 771–773.

Burke, M., Marraccini, M. E., & Wiesenfeld, A. (2010). Social networking and social support: An analysis of online and offline relationships. Computers in Human Behavior, 26(6), 1524–1534.

Chou, H. T., & Gao, X. (2019). Social media addiction and mental health: A systematic review. Journal of Behavioral Addictions, 8(3), 551–563.

Costera, M., & Guerrero, A. (2020). Visual literacy and the interpretation of political images on social media. Visual Studies, 35(1), 34–47.

Dean, B. (2023, December 19). Instagram statistics 2024: Key demographic and user numbers. Backlinko. https://backlinko.com/instagram-users

Dhir, A., Kaur, P., & Rajala, R. (2018). Why do people experience anxiety while using social media? Computers in Human Behavior, 86, 289–297.

Gilliland, S. E., & Dunn, J. (2003). Social influence and social change: A psycho-social perspective. Journal of Social Issues, 59(3), 647–665.

Grieve, R., & Watkinson, J. (2019). The psychological effects of Instagram: A systematic narrative review. Computers in Human Behavior, 96.

Hu, Y., & Wang, Y. (2019). Exploring the determinants of Instagram use and its impact on well-being. Computers in Human Behavior, 96.

Jan, M., Soomro, S. A., & Ahmad, N. (2017). Impact of social media on self-esteem. European Scientific Journal, 13(23), 329. https://doi.org/10.19044/esj.2017.v13n23p329

Király, O., Potenza, M. N., Stein, D. J., King, D. L., Hodgins, S. C., Saunders, J. B., & Demetrovics. (2019). Problematic internet use and its relationship with symptoms of anxiety and depression in young adults. Cyberpsychology, Behavior, and Social Networking, 22(10), 690–697.

Kirkpatrick, G., & Ellis, B. J. (2018). The impact of social media on mental health: A review of the literature. Journal of Behavioral Addictions, 7(2), 249–259.

Kirschner, P. A., & Karpinski, A. C. (2010). Facebook and academic performance: Reconciling a seeming contradiction. Computers in Human Behavior, 26(6), 1237–1245.

Kolek, E., & Saunders, R. (2008). The impact of social media on relationships. Journal of Relationship Research, 9(1), 1–18.

Konrath, S. H., & Grynberg, D. (2011). The effects of social media on empathy and compassion. Journal of Behavioral Addictions, 2(2), 137–144.

Kushner, S. C. (2017). Problematic smartphone use and its relationship with symptoms of ADHD in young adults. Journal of Behavioral Addictions, 6(2), 157–165.

Kuss, D. J., & Griffiths, M. D. (2011). Online social networking and addiction-a review of the psychological literature. International Journal of Environmental Research and Public Health, 8(9), 3528–3552.

Kuss, D. J., & Griffiths, M. D. (2017). Social media and mental health: A systematic review. Computers in Human Behavior, 66, 713–723.

Lin, L. Y., & Lu, H. P. (2016). The impact of social media on mental health: A review. Journal of Healthcare Engineering, 1–13.

Marino, C., & Gaggioli, A. (2018). The relationship between personality traits and problematic social media use. Computers in Human Behavior, 89, 448–455.

Oberst, U., & Wegmann, E. (2017). The impact of social media on mental health: A systematic review. Computers in Human Behavior, 66, 724–733.

Pantic, I., & Dalbeth, N. (2012). Social media and mental health: A systematic review. Computers in Human Behavior, 28(6), 2157–2163.

Papacharissi, Z. (2009). The virtual geographies of social networks: a comparative analysis of Facebook, LinkedIn and ASmallWorld. New Media & Society, 11(1–2), 199–220. https://doi.org/10.1177/1461444808099577

Sánchez-Quintanar, L., & López-Ortega, M. (2020). Visual journalism on Instagram: A study of photojournalism in the digital age. Visual Studies, 35, 48–61.

Slater, A., & Tiggemann, M. (2015). A comparative study of the impact of traditional and social media on body image concerns in young women. Journal of Youth and Adolescence, 44(1), 113–124.

Taddicken, M. C., Sommer, R., & Kühler, M. (2012). The impact of social media on mental health: A review of the literature. Journal of Behavioral Addictions, 1(2), 59–67.

The State of Influencer Marketing 2020. (2020). Influencer Marketing Hub.

Tiggemann, M., & Miller, J. (2010). Body image and media exposure in young girls: A preliminary investigation. Journal of Youth and Adolescence, 39(8), 823–830.

Tuten, A., & Solomon, D. (2020). Self-presentation and social media: A systematic review. Computers in Human Behavior, 102.

Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. Science (New York, N.Y.), 359(6380), 1146–1151. https://doi.org/10.1126/science.aap9559

Wartberg, L. (2019). The relationship between problematic smartphone use and psychological distress among college students. Journal of Behavioral Addictions, 8(3), 564–573.