

Prevalence of Instagram Addiction among College Students: Assessing the Influence of Gender and Usage Duration

Leon Auster Dsouza^{1*}

ABSTRACT

Each year, the usage and misuse of technology, including services like social media, has risen exponentially, particularly among teens and young adults. This trend underscores the growing concern of behavioral disorders. While extensive research has been conducted on addiction to social networking sites (SNS), smartphone use, and the internet, there is a notable lack of studies specifically addressing addiction to Instagram. Instagram addiction is categorized as a behavioral addiction, characterized by an excessive need to use the platform and an uncontrollable urge to log in or engage with the service. Common reasons for this behavior include escapism, passing time without productivity, exhibitionism, amusement, socializing, and curiosity, particularly among young adults. The purpose of this study was to investigate the relationship and effects of Instagram addiction on various demographic groups. The sample consisted of 200 college students, aged 18-25 years. The Test for Instagram Addiction (TIA), developed by D'Souza et al. (2018), was used as the primary tool for data collection. Instagram addiction was analysed across seven components: Lack of Control, Disengagement, Escapism, Health and Interpersonal Issues, Excessive Use, Obsession, and Total Scores. The findings revealed that 15.5% of respondents were prone to Instagram addiction, while 44.5% were considered average users. Significant positive correlations were found between various aspects of Instagram addiction and usage patterns during both weekdays and weekends. Additionally, male participants scored higher on the disengagement component compared to females in the study.

Keywords: *Instagram addiction, Gender, Usage hours, India*

The use of social networking sites (SNSs) has significantly increased in recent years. Instagram, a free social networking platform introduced in 2010, is primarily designed for sharing photos and short videos. According to a survey by Dixon (2022) in Statista, India has the largest Instagram audience, with 230.25 million users. As of April 2022, 30.2% of all Instagram users were between the ages of 18 and 24. Similar to other social media platforms, Instagram enables users to interact by following others, being followed, commenting, liking, tagging, and sending private messages. Over the last decade, checking and browsing social media has become increasingly common. Although most users

¹ Undergraduate Sophomore, Ira A. Fulton Schools of Engineering, Arizona State University, Tempe, AZ 85281, USA, Email: leonaustersouza@gmail.com

*Corresponding Author

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engage with social media in a balanced way, a small percentage develop an addiction to Instagram, using it obsessively or excessively.

According to Hilliard and Parisi (2020), social networking sites such as Facebook, Snapchat, and Instagram activate the same brain pathways as drugs and gambling, driving compulsive use. Tamir and Mitchell (2012) found that self-disclosure, which makes social networking platforms like Instagram so addictive, is strongly linked to increased activity in brain regions involved in the mesolimbic dopamine pathway, such as the nucleus accumbens and the ventral tegmental area. Abrams (2021) further notes that Instagram capitalizes on users' innate desire for social acceptance, encouraging them to engage more. In response, Instagram launched a "Taking a Break" campaign to encourage users to disconnect occasionally and focus on other aspects of life (Desk, 2022).

The constant barrage of notifications and updates on SNSs makes it difficult for users to accomplish other goals. These platforms also employ persuasive techniques to keep users engaged. However, some users may lack the self-control to manage these influences, turning SNSs into tools for procrastination, which can lead to poor performance and anxiety. Academic procrastination occurs when students delay assignments, resulting in lower-quality work or missed deadlines. This, in turn, contributes to unnecessary stress (Alblwi et al., 2019).

Instagram, an online social networking site, boasts around 400 million active monthly users. Its members share approximately 80 million photos daily, connecting with about 3.5 billion other users worldwide. Founded in 2010, Instagram was acquired by Mark Zuckerberg, the owner of Facebook, in 2012. It has since become one of the most popular apps, used by individuals of all ages. Designed to help users connect globally, Instagram facilitates a variety of activities, including social media browsing, photo sharing, and personal and professional networking.

Many users share aspects of their daily lives to inspire others, gain approval, or simply to receive feedback through comments. However, this can sometimes lead to comparisons, judgments, or attempts to imitate others based on their online personas. Constant competition on social media can contribute to mental and physical health issues such as anxiety, low self-esteem, and depression.

Research has shown that internet addiction and procrastination are strongly negatively correlated with core self-evaluations and self-control (Geng et al., 2018). Instagram, a photo- and video-sharing app with over 1 billion downloads, has become one of the leading social apps on Google Play. Like other SNSs, Instagram can become addictive, with symptoms resembling those of substance use disorders. Andreassen and Pallesen (2014) define SNS addiction as an excessive preoccupation with SNSs, driven by a strong desire to access or use these platforms, to the extent that it interferes with other social activities, studies, work, interpersonal relationships, and overall well-being. Marlatt et al. (1988) describe addictive behavior as a repetitive pattern that increases the risk of personal and social problems, often resulting in a perceived "loss of control." These behaviors offer quick rewards but are typically accompanied by delayed negative consequences.

In a self-report survey of 752 university students, Kircaburun and Griffiths (2018) found a positive correlation between daily internet use and Instagram addiction, while agreeableness,

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conscientiousness, and self-liking were negatively correlated. In a study by Purba et al. (2020) on 62 class 11 teenagers, they found a negative relationship between self-control and social media addiction, indicating that higher self-control is associated with less social media addiction.

Excessive Instagram use has been linked to several negative effects, as demonstrated by various studies. These include increased shyness in cognitive, physiological, and action-oriented domains among college students (D'Souza & Ranganath, 2018), higher levels of depression among pre-university and college students (D'Souza & Hemamalini, 2018a), and increased anxiety among pharmacy students (D'Souza & Deeksha, 2019). Additionally, excessive Instagram use has been shown to reduce sleep quality among dental students (D'Souza & Meenakshi, 2018) and speech and hearing students (D'Souza & Negahban, 2019).

The present study aims to compare Instagram usage among college students. The rise of online classes during the COVID-19 pandemic has led to increased smartphone usage, which may have driven students to spend more time on Instagram to combat boredom and loneliness. It is hypothesized that there will be significant relationships between smartphone usage hours and Instagram addiction, with gender potentially influencing these relationships.

METHOD

Sample

The sample for the study was selected from various colleges in Karnataka and nearby states. A total of 200 Pre University and undergraduate college students studying in Arts, Science and commerce disciplines were randomly selected, who were using Instagram for at least a duration of 6 months. They were distributed with questionnaire- Test for Instagram addiction along with demographic details.

Tools employed

Test for Instagram Addiction (TIA); D'Souza, Samyukta and Bivera (2018):

To assess the extent of addiction towards Instagram, TIA was developed by D'Souza, Samyukta and Bivera in the year 2018, comprising of 26 statements. TIA measures Instagram addiction of the individual in 6 components, which included components like Lack of control, Disengagement, Escapism, Health and interpersonal troubles, Excessive use and Obsession. TIA has to be answered in 5-point Likert scale, like all the time to rarely/never. The scores range from 5 to 1, assigned like - All the time (5), most of the time (4), sometime (3), once in a while (2), and rarely/never (1). To find out the reliability, the Cronbach's reliability test was done and the alpha value obtained for the total inventory was 0.931 and for various components varied from 0.680 to 0.863. Further, when item to total scores correlations were performed; all the correlation coefficients obtained through Pearson's product moment correlation techniques were found to be highly significant, indicating that the TIA has high reliability and validity. Even the correlation coefficients obtained between components were found to be highly significant. High scores on the TIA indicate higher addiction to Instagram.

Procedure: Initially, permission to collect data was obtained from the relevant authorities of the educational institutions. Once permission was granted, the first author briefed the students about the study, and informed consent was obtained. Subsequently, the Test for Instagram

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Addiction (TIA), along with other demographic details, was administered to the college students by asking them to fill out the relevant information. They were instructed to complete the Test for Instagram Addiction scale and indicate their responses on the provided sheets. Once the data were collected, they were screened for completeness, scored, and input into a computer. The data were analyzed using Pearson's Chi-square test, Pearson's product-moment correlations, and independent samples t-tests. Table 1 presents the results of the Pearson's Chi-square test for levels of Instagram usage. Table 2 presents the results of the product-moment correlations between various components of the Instagram Addiction Test and usage hours during weekends and weekdays. Table 3 shows the results of independent samples t-tests for Instagram usage.

RESULTS

Levels of Instagram usage of the respondents

Table 1: Showing the results of levels of Instagram usage of the respondents in the study

Usage levels	Frequency	Percent
Minimal usage	4	2.0
Low usage	72	36.0
Average usage	89	44.5
Addict prone	31	15.5
Definitely addict	4	2.0
Total	200	100.0
Test statistics	$X^2=152.450$; $p=.001$	

We find that the 15.5% of the respondents are on the verge of becoming addicts towards Instagram, while 2.0% of them are definitely addicts. A majority of 44.5% of the respondents have average level of usage of Instagram and we find a significant distribution of the population with $X^2 = 152.450$ and $p = .001$

Relationship between Instagram addiction test and usage hours during weekend and weekdays

Table 2: Showing the correlation of components in Instagram addiction between weekday usage and weekend usage

Components		Weekday usage	Weekend usage
Lack of control	Pearson Correlation	.195	.252
	P value	.006	.001
Disengagement	Pearson Correlation	.378	.425
	P value	.001	.001
Escapism	Pearson Correlation	.308	.283
	P value	.001	.001
Health and interpersonal troubles	Pearson Correlation	.295	.340
	P value	.001	.001
Excessive use	Pearson Correlation	.260	.286
	P value	.001	.001
Obsession	Pearson Correlation	.268	.211
	P value	.001	.003
Total	Pearson Correlation	.383	.405
	P value	.001	.001

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Highly significant and positive correlations were observed between scores on components of TIA and usage of Instagram during weekdays and weekends, wherein all the components show a positive and high significance. We find that the component of lack of control, there is a positive correlation with weekday usage ($r=.195$; $p=.006$) and weekend usage ($r=.252$; $p=.001$). Under the component of disengagement, a positive correlation with weekday usage ($r=.378$; $p=.001$) and weekend usage ($r=.425$; $p=.001$) has been observed. We further observe under the component of escapism, a positive correlation with weekday usage ($r=.308$; $p=.001$) and weekend usage ($r=.283$; $p=.001$). Similarly when it comes to health and interpersonal troubles, a positive correlation with weekday usage ($r=.295$; $p=.001$) and weekend usage ($r=.340$; $p=.001$) has been seen. When excessive use component of Instagram addiction was observed, we find that there is a positive correlation with weekday usage ($r=.260$; $p=.001$) and weekend usage ($r=.286$; $p=.001$). The obsession component showed similar results of positive correlation with weekday usage ($r=.268$; $p=.001$) and weekend usage ($r=.211$; $p=.003$). When the total scores of Instagram addiction was considered, we find positive correlation with weekday usage ($r=.383$; $p=.001$) and weekend usage ($r=.405$; $p=.003$).

Gender and Instagram usage

Table 3: Showing the t-test values of respondents based on gender and the various components of Instagram addiction

Components	Gender	N	Mean	Std. Deviation	t-value	p
Lack of control	Male	122	14.16	4.77	.516	.606
	Female	78	13.79	5.17		
Disengagement	Male	122	15.34	5.39	2.463	.015
	Female	78	13.37	5.67		
Escapism	Male	122	13.68	4.29	.950	.343
	Female	78	13.03	5.41		
Health and interpersonal troubles	Male	122	7.19	3.59	1.488	.138
	Female	78	6.45	3.17		
Excessive use	Male	122	4.11	2.17	.761	.447
	Female	78	3.87	2.24		
Obsession	Male	122	7.77	3.59	.974	.331
	Female	78	7.24	3.95		
Total	Male	122	62.25	17.36	1.676	.095
	Female	78	57.76	20.18		

When the Instagram addiction scores were subjected to gender-wise analysis, we find that gender had significant influence over disengagement component of Instagram, males were found to be more disengaged than the females with a mean score of 15.34 and 13.37 respectively ($t=2.463$; $p= .015$). Gender did not have significant influence over other components of TIA and total scores.

DISCUSSION

Major findings of the study:

- 15.5% of the selected samples are prone to Instagram addiction, and 2.0% are confirmed addicts.
- There is a positive and significant correlation between Instagram usage on weekdays and weekends.

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- Males exhibit a significantly higher level of disengagement compared to females due to Instagram usage.

Here is a revised version of your text with improved grammar and clarity:

With the decreasing prices of technology and its services, the availability and accessibility of these tools have been exponentially increasing across all demographic groups. It is crucial to highlight such behavioral disorders, as neglecting them could have long-term impacts not only on the individuals affected but also on their families, communities, and environments. Approximately 17.5% of the selected sample were prone to addiction, with some being confirmed addicts.

A study by Chathoth et al. (2013) conducted in Mangalore city on clinical experts found no extreme addicts. In contrast, research by Chaudhari et al. (2015) on internet addiction among medical students revealed that 58.87% of students were addicted to the internet. Of these, 51.42% were somewhat dependent, while 7.45% were moderately dependent. This finding is consistent with a study by Duraimurugan et al. (2015), which found a 56.6% prevalence of internet addiction among college students in South India. In this study, 41.3% were considered mild addicts, and 15.2% were moderate addicts. Similarly, Sharma et al. (2014) reported a 42.7% prevalence of internet addiction among professional college students in India, with 35% being mild addicts, 7.4% moderate addicts, and 0.3% severe addicts.

A study by Alnjadat et al. (2019) found that males are more likely to be addicted to social media than females, while females' academic performance is more significantly affected by social media usage. Further research has suggested that individuals with neurotic traits are more likely to be unstable, impatient, and prone to anger, often perceiving life negatively (McCrae & John, 1992). For such individuals, continuous exposure to colorful images and videos on Instagram offers an easy escape from their real-life problems and strained relationships within their homes and communities. Additionally, individuals with higher usage rates of platforms like Instagram are more likely to be preoccupied with others' opinions of them. They often lose track of time scrolling, reading comments, and stalking others' profiles (Choi et al., 2017).

Instagram addiction has become a significant issue among both professional and non-professional students. The dependency on Instagram impacts the bio-psycho-social development of individuals. It is essential to develop strategies and treatment options to help individuals break free from this silent prison of Instagram addiction and address its negative consequences (D'Souza & Sowmya, 2018).

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Conflict of Interest

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