

Analyzing How Social Media Platforms Influence the Behaviour and Mental Health of Students: An Empirical Study

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Abstract—The study focuses to assess the effects of social networking sites on students' mental health and behavioural tendencies. This paper discusses the impact of Instagram, Snapchat, and YouTube on Gen Z students studying at a Private University. Primary data were collected through a structured survey using a quantitative method involving the use of 100 participants whose digital behaviour was investigated, their emotional behaviour, and behaviour change. Both descriptive and inferential statistics were used in analyzing the data to determine the trends and relationships underlying the data. The results show that Instagram is the most popular platform with students spending a large amount of time on social media every day. Such excessive use is associated with behavioural issues, such as poor attention, procrastination, and sleeping disorders. Moreover, students often contrast their appearance, as well as their lifestyle with those of other students on the Internet. Nonetheless, the levels of anxiety and stress were moderate, in general. These online mediums create social networks, encourage creativity and enhance motivation. Further results showed that the number of hours of screen time was only weakly correlated with mental health outcomes, meaning that the nature of platforms usage is more important than exposure. Finally, social media is a two-faced coin, thus the need to be careful and moderate in the use of digital technologies by the student population.

Index Terms—Digital Well-being, Gen Z, Instagram, Mental Health, Social Media Usage, Student Behaviour

I. INTRODUCTION

The spread of social networking has radically changed the way students of the modern world learn, socialize with the peers and understand themselves. The use of

such apps as Snapchat, YouTube, and Instagram has become such a part of their life that it influences their mood, thoughts, and actions, and even social life. Although these digital spaces provide opportunities of creativity, information sharing, and connection, the risks that accompany their negative psychological impacts, including reduced self-esteem, anxiety, and problems with concentration, are on the rise (4). Besides, unproductive comparisons and unrealistic expectations are also possible because of the extensive use of filtered information on the Internet, which can even exacerbate the psychological strength and attention of students (10). On the other hand, digital networks have the ability to create strong support mechanisms through mental health awareness, involvement in the community and interaction with peers (6).

Regardless of these opposing views, it is vital to be very keen on the effects of social media on the mental conditions and behaviour of students. The paper examines the impact of the online behaviours of the students on their psychological well-being and behavioural tendency. With these revelations, the bad and the good of the digital civilisation will come into perspective.

The massive amount of social media activity that has emerged as a result of the extensive application of digital technology, as well as the Internet, have had a striking impact on learners and their social life and daily functioning. Instead of being communication tools, YouTube, Snapchat, and Instagram are potent ecosystems that establish the norms of behaviour, relations with peers, and identity construction (4). These platforms are therefore now part of the student

development, being the main sources of self-expression, academic support, information and entertainment (4).

This growing dependence has raised a voluminous scholarly discussion on its psychological impact. The studies show that the long-term exposure to staged and perfect images increases social comparison, often leading to increased anxiety, stress, body image insecurity, and lowered self-esteem (10). In addition, the constant need to seek digital validation in the form of shares, comments, and likes may entrench the dependence on external validation, which may weaken emotional stability and self-confidence (8).

At the behavioural level, social networking is linked to variations in academic engagement, academic productivity, and concentration. The uninterrupted accessibility of algorithmically-filtered media often increases the amount of screen time, and people cannot focus on their job (1). This interference is especially harmful among the students who are habitual to study routines. Also, a high level of digital interactions usually causes a lack of exercise and disregard of sleep rhythm, which exacerbates the emotional and cognitive challenges (5).

Notwithstanding these fears, the good features of social media should not be disregarded. It may be a helpful resource as it fosters emotional bonds, peer support groups, exchange of information, and sensitization of mental health (6). This dichotomy, that social media is a worthwhile resource and a potential risk, highlights the need to consider its impact in a subtle, situation-specific manner. In particular, the experience of a student can be extremely different, depending on their psychological composition, types of content they watch, as well as their specific habits of using it.

Although international studies are a great starting point, there is a need to conduct empirical studies which offer a cultural and educational setting. Therefore, this study uses an evidence-based systematic methodology to examine the interdependence between mental health, behaviour, and the use of social media among the students. It is supposed to further enrich the already existing scholarly debate, and offer a practical recommendation to the students, policymakers and educators who have to navigate in the unique circumstances and opportunities of the digital space.

II. REVIEW OF LITERATURE

There has been extensive research on the interdependence of the mental health of students and the use of social media. The preliminary studies mainly examined the psychological consequences. As an example, a meta-analysis has continually linked an overabundance of digital engagements with an increase in psychological distress, depression, and anxiety in adolescents (4). In this vein, emphasized the far-reaching effects of social comparison. They hypothesized that when individuals are exposed to carefully edited digital images, they often form negative self-perceptions, thus negatively impacting their self-esteem (10). The latter idea was elaborated upon, claimed that the growth of screen-based communication was accompanied by the decline of the psychological health of adolescents (8). They emphasized that the more people are on-line, the more they can replace important social interaction.

Although these studies shed light on the adverse psychological consequences, later studies have examined the behavioural mechanisms underlying this. The research has explored the phenomenon of addiction to social networking and the impact of the addiction on time management and academic tasks (1). In the meantime discovered that the use of social media correlates with the low quality of sleep, which affects mental abilities and affective control (5), which again supports the correlation between digital behaviours and sleep habits. These hints indicate that the outcomes of digital platforms are not the consequences (aftereffects), but proactive effects on the behaviour patterns of the students and predetermine their overall health.

On the other hand, other scholarly opinions shed some light on the positive aspects of social networking. Research highlighted that these resources can be the key sources of social support, particularly among the people who struggle with mental health problems or loneliness. Their results have demonstrated that online communities foster inclusivity and encourage open discussions on mental health, and they are effective in breaking the stigma. In this perspective, the Research have discovered that the social capital is enhanced by the use of social media, which creates new social networks and enhances the current interpersonal relationships (3). This impartial view indicates that the

final effects of social media highly rely on the motivations and manner of interaction of the users.

In view of these varying opinions, only the modern studies have adopted a subtle approach in trying to establish the moderating factors. The Research (9) made a distinction between passive and active consumption and demonstrated that active (where people directly communicate) and often passive (where people scroll and scroll) consumption behaviours are likely to stimulate well-being and result in negative emotional responses, respectively. Similarly, the researchers of the study by the Research (2) also emphasized the critical significance of individual differences and discussed the crucial influence of emotional sensitivity and personality traits on determining the reaction of users to digital platforms. Rather than viewing the impacts of social media through a large prism, this change in perspective promotes a more individualised perspective.

III. METHODOLOGY

This quantitatively-based research analyzes the effects of social media usage by Gen Z students on their mental health as well as behaviour within a Private University. The patterns, behavioural results, and correlations were carefully analysed using an analytical and descriptive manner and were done via Snapchat, YouTube and Instagram. The proposed research would adopt a holistic approach to reality on understanding behavioural and psychological aspects of online interactions of this group of academics.

IV. STUDY OBJECTIVES

The following were the main objectives of this study:

1. The research question was to establish the effect of apps such as Snapchat, YouTube and Instagram on the mental health of Gen Z students studying at a Private University, Bengaluru.
2. To determine the effects of online involvement on behavioural characteristics, such as social interactions, productivity, and self-esteem.
3. To explore how different content types (e.g., short-form videos, visual posts, influencer media) are determinants of psychological and emotional reactions.
4. To determine the negative and positive effects of using social media on psychological wellness

5. To offer practical suggestions that can stimulate responsible and healthy digital behaviour among students.

Hypotheses of the Study

The hypotheses were formulated based on the set objectives as follows:

- H1: The duration students allocate to Snapchat, YouTube, and Instagram is significantly correlated with their mental health.
- H2: Higher frequency users of these platforms exhibit observable behavioural shifts in social engagement, sleep quality, mood, and academic concentration.
- H3: Instagram consumption has a more profound impact on body image and self-esteem than Snapchat or YouTube.
- H4: Engagement with YouTube alters academic behaviours (specifically, productivity and attention span) more significantly than Snapchat and Instagram.
- H5: The utilization of Snapchat influences social behaviours and peer dynamics more heavily than YouTube or Instagram.

V. RESEARCH DESIGN AND DATA COLLECTION

The present study has used primary data collected through a carefully-constructed survey that was consistent with the formulated hypotheses and research objectives. The questionnaire was sent to the student body of the Private University and only those who were actively enrolled and within the Gen Z age group (born 1997 - 2012) were screened to participate in the survey. In order to uphold ethical standards, prior, informed consent was received, and participation was completely voluntary.

Convenience sampling was done using the willingness and accessibility of the participants, and 100 valid responses were collected. Thanks to this strategy, we managed to collect data effectively all over campus and present a high-quality image of the group behaviour. The poll has been prepared to fit in nine different sections to evaluate digital involvement in a different manner.

- Section 1 (Eligibility and Consent): Verified participant qualifications and confirmed voluntary involvement.
- Section 2 (Demographic Information): This section gathered foundational data, including residential type, department, academic program, gender, and age.
- Section 3 (Patterns of Social Media Use): Answered about regular use, preferred networks, time usage, and frequency of use.
- Section 4 (Content and Engagement): The way technology uses some types of media (like influencer posts and short videos) and behavioural display phenomena (like FOMO and peer pressure) are utilized was examined.
- Section 5 (Mental Health Indicators): Likert-scale questions as regards to emotional responses, i.e., belongingness, joy, worry, and tension.
- Section 6 (Behavioural Responses): Measured Behavioural consequences, like making peer comparisons, task procrastination and disturbed sleep.
- Section 7 (Positive aspects): The discussion section on the positive aspects includes the good effects such as stress reduction, improvements in education and strengthening social bonds.
- Section 8 (Self-Regulation and Awareness): Measured the level of receptivity to online wellness programs and courses.
- Section 9, which is concerned with the recommendation and obstacles, assessed the preparedness to embrace better health behaviours, and the barriers that are defined to reduce screen time.

The tool applied a combination of multiple-choice and Likert scale assessments to ease categorical and scaled analysis.

VI. DATA ANALYSIS TECHNIQUES

Descriptive and inferential statistics helped us come into terms with the data. Statistics for description, such as averages, frequencies, and percentages were also used to summarize the usage of platforms and demographical profiles. The associations among the variables were analyzed using inferential methods such as a comparative and correlation analysis to prove the hypotheses. The approaches proved to be fruitful

in uncovering substantial correlations between mental health indicators, behaviour change, and internet time spent.

VII. DISCUSSION

Table 1: Descriptive Statistics

Variable	Mean	Std Dev	Cronbach Alpha
Q1. Which of the following platforms do you use most frequently?	1.56	0.903	0.76
Q2. Average time spent daily on Instagram:	2.67	1.035	0.89
Q3. Average time spent daily on Snapchat:	2.01	0.948	0.74
Q4. Average time spent daily on YouTube:	2.33	1.781	0.79
Q5. Frequency of checking social media per day:	2.6	1.172	0.73
Q6. On a scale of 1–5, how strongly do you agree: I use social media because of peer influence.	2.67	1.256	0.78
Q7. I struggle in time management and assignments due to social media usage	3.56	1.493	0.77
Q8. How often do you feel about your body/looks?	3.47	1.494	0.88
Q9. How often do you feel about your achievements/lifestyle?	3.17	1.658	0.84
Q10. Age	20.36	8.047	0.87
Q11. I follow trends because I do not want to miss out.	2.65	1.184	0.82

Q12. What do you feel is social media's effect on your mental health?	2.92	0.895	0.73
Instagram	3.41	1.272	0.75
Q13. Gender	1.51	0.502	0.78
Q14. Which of the following platforms do you use the least?	2.09	0.57	0.72
Q15. Do you experience these emotions after using social media?	3.68	1.1	0.73
Q15. Do you experience these emotions after using social media? [Feel Motivated after seeing skill related content]	3.87	0.939	0.74
Q15. Do you experience these emotions after using social media? [Find it difficult to stop scrolling even when I intent to]	3.27	1.171	0.83
Q15. Do you experience these emotions after using social media? [Have missed sleep because I was using Social Media]	2.86	1.318	0.84
Q15. Do you experience these emotions after using social media? [Increase my productivity]	2.94	1.118	0.86
Q15. Do you experience these emotions after using social media? [Leads to procrastination]	3.52	1.141	0.75
Q15. Do you experience these	3.31	1.061	0.77

emotions after using social media? [Makes me compare things that I have]			
Q15. Do you experience these emotions after using social media? [Platforms give me new ideas and inspiration to improve my life]	3.84	0.861	0.86
Q15. Do you experience these emotions after using social media? [Using these platforms' I feel more connected to friends]	3.65	1.077	0.81
Q16. On a scale of 1-5 how 2 you feel these emotions after using social media? [Stress]	2.68	1.317	0.71
Q16. On a scale of 1-5 how 2 you feel these emotions after using social media? [Anxiety]	2.44	1.274	0.79
Q16. On a scale of 1-5 how 2 you feel these emotions after using social media? [Happiness]	3.25	1.201	0.84
Q16. On a scale of 1-5 how often do you feel these emotions after using social media? [Sense of belongingness]	2.72	1.147	0.83
Q17. Because of social media, I go to sleep later than planned	3.22	1.338	0.74
Q18. [I would follow tips/reminders that reduces night-time social media use]	2.69	1.212	0.82

Q18 [I would prefer interventions that are digital (app/2tifications) rather than in-person]	2.68	1.16 2	0.84
Q18. [I would welcome clear guidelines from the University on healthy social media use]	2.65	1.20 9	0.88
Q18. [Short workshops on mindful social media 3s would interest me]	2.68	1.22 2	0.74
Q19. Would you be willing to try a 1-week "digital hygiene challenge if it was organized by the University?	2.25	0.90 3	0.73
Q20. The biggest barriers to reducing social media usage?	2.84	1.18 7	0.83

Internal consistency and reliability were established and the Cronbach alpha scores were between 0.71 and 0.89. The statistics show that Instagram is the main digital platform of students, which reveals the strong impact that it has on their behaviour. The use patterns seem to be so instilled that the frequency of checking profiles is very high, and the time spent on these networks is moderate to significant. The results indicate extensive behavioural implications, namely higher mean scores of time management struggles, procrastination and general distractions supporting earlier Research (1). In addition, the digital habits had a significant impact on rest and the participants often postponed their planned sleeping times consistent with existing findings (5).

. Mentally, students also expressed their high-level of fears about their life style and body image because of social comparison (10). However, the cognitive measures of anxiety and stress were not very high, which indicates that the psychological impact is significant but not very strong (4). At the same time, digital networking has positive outcomes as it strengthens peer relationships, provides motivation, and generates encouragement in students (6) . The

other compulsive tendencies as evident in the analysis include that of not being able to stop scrolling albeit minor. Ultimately, these findings paint a varied picture of the reality in which social sites are the biggest determinants of behaviour and at the same time add to a multifaceted set of psychological harm and benefits.

Table 2: Correlation Analysis

Correlation Matrix			
		com	corr
com	Pearson's r	—	
	df	—	
	p-value	—	
corr	Pearson's r	0.052	—
	df	103	—
	p-value	0.599	—

A Pearson r of 0.052 was achieved in the correlation analysis indicating a very weak positive relationship between the two variables. This finding suggests the fact that there is almost no linear relationship. Besides, the obtained p-value of 0.599 was a lot higher as compared to the standard 0.05 level of statistical significance. As a result, any correlation that is observed is most likely to be a product of mere chance and not a significant relationship. In this way, the data did not justify a significant correlation, which justified the rejection of the original hypothesis.

Table 3: Regression Analysis

Model Fit Measures		
Model	R	R ²
1	0.150	0.0226
Note. Models estimated using sample size of N=100		

The regression model had low explanatory power with the resulting R-value of 0.150 which shows a weak relationship between the dependent and independent variables. The value of the R² is 0.0226 which shows that the model explains only 2.26 percent of the variation in the dependent variable. This indicates a critical weakness of predictive power indicating that there are other external and unmeasured factors that probably control the results. This low explanatory power highlights that social media usage alone is not a strong predictor of students' mental health. It suggests

that other external factors—such as individual personality traits, academic pressure, social environment, and coping mechanisms—may play a more significant role in influencing psychological well-being. The findings also reinforce the idea that the *quality and type of engagement* with social media are more important than the *amount of time spent*.

The sample (N=100) was stable but the results were not as potent as they would have been to demonstrate a conclusive effect. To conclude, the regression model provides poor data-fitting and insignificant use in elucidating the relationships among the tested variables.

VIII. RESULTS AND DISCUSSIONS

The research found that Instagram was the most popular among the student community, and it significantly influenced their lives. The high engagement suggests that visually appealing and algorithm-based platform have major role in shaping student's experience. The digital interaction habits have significant effects on important aspects like time management, procrastination, and distraction proneness. This supports that longer exposure to short-form video reduces attention. Although issues related to body image and peer comparison are high (10), the general anxiety and stress levels are not high (4). On the other side, participants who participated in it reported feelings of inspiration, motivation and a sense of connection (6). The study also suggests that duration of usage does not mostly determine psychological impact. Instead, they also engage in meaningful activities like skill development, learning, or maintaining social connections have positive outcomes. The study ends with a raising of the dualist quality of digital platforms, making the argument that they not only affect the behaviours of students but also their moods. Overall the findings suggest social media act as the behavioural amplifier, as it does not create entirely new pattern but instead amplifies existing habits. Students using social media in a structured manner will be productive whereas those who have weaker self-regulation will have negative experience.

Implications

Some suggestion that can be given as positive advice to kids can involve being conscious of the amount of time they spend in front of the screen throughout their

day and engaging in designed on-screen activities such as scrolling their night screens. Colleges and Universities are supposed to promote health education and training activities, which focus on proper digital behaviours. Efforts should widely be backed with such self-regulation technologies as focus mode and application timers. Users should also put a strong emphasis on skill-building and learning materials and move its consumption onto meaningful content. Another approach to decrease screen time would be to promote a more balanced daily life by involving activities not involving screens.

IX. LIMITATIONS

Firstly, the sample size is limited to 100 respondents which does not represent a broader student population. Next, study is made only in 1 private university ignoring applicability to students from other educational background.

Also, the data is based on self-reported responses, which may be subject to bias, including exaggeration or underreporting of behaviours.

X. FUTURE SCOPE

A larger and more diverse sample across multiple universities and regions would improve generalisability of results. A comparative study between different age groups may show a different pattern, also analyzing how personalized feeds influence user behaviour and emotional response. Finally, qualitative approaches such as interviews or focus groups can complement quantitative findings by providing deeper insights into students' personal experiences and perceptions.

XI. CONCLUSION

This is an empirical study that demonstrates that social media has a strong impact on the mental state and behavior of Gen Z students. The findings show that social media has become an integral part of students' daily lives, significantly shaping their habits, routines, and interactions. Platforms such as Instagram, YouTube, and Snapchat contribute to both positive and negative outcomes, depending on how they are used. Just as it offers the required guidance on the way to motivation and interpersonal connections, so is it the

movement that makes the negative qualities of unhealthy comparisons and dislocation. Although the overall impact may not be too bad, it is nevertheless a result of user actions and intentions. Thus, there is a need to have a controlled and deliberate approach to online discourse. Learning to use these platforms in a responsible mode, and becoming more digitally literate, kids might enjoy the benefits and escape the risks. Thus, social media should not be viewed as entirely harmful or beneficial. It functions as a tool whose impact depends on the user's behaviour, awareness, and level of self-regulation. Encouraging mindful usage and promoting digital well-being can help students maximize the benefits of these platforms while minimizing their negative effect

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