

# THE ASSESSMENT OF THE IMPACT OF SOCIAL MEDIA USAGE ON THE ACADEMIC ACHIEVEMENTS OF COLLEGE STUDENTS IN INDORE, MADHYA PRADESH

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## ABSTRACT

Both social media and Information and Communication Technology have become an integral part of college students' lives, significantly impacting their academic performance. The present research work aimed to find out the extent to which social media usage influences academic success by investigating various factors such as the frequency of social media engagement, the purpose of use (academic vs. non-academic), effectiveness, time management, effectiveness, and the platforms most commonly utilized by students of higher education, in Indore, Madhya Pradesh, India. For this, a quantitative research design was employed, and data were collected using Google Forms-based surveys and collected data were further studied to identify trends and correlation between studied parameters. The findings revealed that 93% of respondents have been using social media, with most spending 1–2 h daily. Moreover, these are using social media primarily for educational purposes (61.5%), followed by news (45%) and entertainment (44%). A proportion (50.75%) of students have seen to experience positive impact of social media on their academics. Similarly, 71.5% have reported receiving study-related help through it. However, the data also showed that the excessive use caused distraction (54.75%), time management issues (40.25%), and mental health issues (52.5%). Overall, a good number of students (88.75%) have mentioned that social media can be more effectively used for education. Overall, the findings can serve as a ground to students, educators, doctors, parents, and policymakers in making informed decisions about balancing social media use with academic goals and also laying the groundwork for future research into more effective usage.

**Keywords:** Social media, Academic performance, Student engagement, Educational technology, Time management, Mental health, Digital literacy, Higher education.

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## INTRODUCTION

At present, Information and Communication Technology (ICT) has become an essential fundamental part of higher education and has revolutionizing teaching, learning, and evaluation processes in almost all areas of education (Kumar, 2024). ICT can potentially enhance access to learning opportunities, increases flexibility in education conveyance, and because of its multimedia the same can provide motivation to learn especially for academically backward students (Junco, 2012). Among the most significant advantages of ICT for education, some are like this enables the classroom environments more dynamic and supports online learning, overcoming notable issue of geographical and financial barriers (Agrawal, 2021). With this, collaborative tool and collaborative learning can be facilitated (Andreassen and Griffiths, 2017). More specifically, the integration of ICT in higher education has led to the development of e-content, digital libraries, Massive Open Online Courses, Moodle, and various online vocational courses, making knowledge more accessible (Agustina and Usman, 2024). In addition, ICT has built students with the technological skills demanded by employers in the modern workplace (Anwar and Mathew, 2014). Overall, the adoption of ICT in higher education has a positive impact on teaching, learning, and research, enhancing the quality of education (Bu'ulolo and Hulu, 2025).

On the other side, social media has also become a vital part of students' daily lives, because it has the capacity to offer both benefits and potential drawbacks in terms of academic performance (Gilbert *et al.*, 2018). Some recent researches have mentioned that appropriate usage of social media has capacity to boost career development, and educational videos, content, internet searching, and online reading has seen to put positive effects on academic performance (Mishra & Rawat, 2015; Goet, 2022; Jha, 2024). In addition, the same can also serve as a source of academic collaboration and knowledge sharing and potential

to serve as a potential resource to improve overall academic outcomes. On the other hand, some reports have also mentioned that, along with many positive sides, the same can also put adverse impacts on the users (Manca and Ranieri, 2016), as excessive use can lead to addiction, stress, mental disorders and can negatively affect academic life (Maruthi, 2024). Overall, the impact of social media on students' academic performance and career is complex and multifaceted, requiring a comprehensive model integrating various theoretical frameworks to fully understand its effects (Samarasinghe and Chandrasiri, 2019).

As students increasingly turn to social media for communication, education, and entertainment, the impact of this digital engagement on their academic performance remains a topic of considerable debate (Agrawal *et al.*, 2021). The core cause behind the present research work is to understand the extent to which social media usage influences the academic attainment of college students in Indore, Madhya Pradesh, India. Specifically, it searched to assess how different patterns of social media use such as the frequency of engagement, the platforms used, time management, possible stress level, and the purpose of use of social media affect students' academic outcomes, including their grades, knowledge, digital study habits, and overall academic management.

In addition to this, the impact of rapid digitalization in education, was essential to investigate. The correlation of social media tools with academic enhancement or an unfavorable distraction was needed to be investigated (Al-Sammak *et al.*, 2024). Although, to the best of our knowledge and on the basis of online available literature, this study has not been done earlier in the studied area, therefore, this research was aimed to fill the gap in existing literature by examining the relationship between social media usage and academic success among students in a specific geographic context of Indore, Madhya Pradesh, India. The outputs of the present findings might contribute valuable insights into the role of social media in shaping the personal experiences of college

students in the studied area and provide practical recommendations for balancing digital engagement with academic responsibilities. By focusing on college students in Indore, the research might be helpful to offer insights into the local context of social media usage within the studied educational environment, which possibly differs from global trends.

## METHODOLOGY

To study the impact of social media on academic achievements of students, quantitative research was done, in which survey of college students via Google Forms-based questionnaires was conducted by taking 10 simple objective-type questions. In a month, data of total of 400 students of various backgrounds and different colleges in the Indore, Madhya Pradesh, India, was collected. The key questions of the questionnaires are as follows:

1. Do you use social media (such as Facebook, Instagram, Twitter, and WhatsApp)? (a) Yes; (b) No
2. On average, how long do you use social media per day? (a) 1–2 h; (b) 2–4 h; (c) 4–6 h; (d) More than 6 h
3. For what purpose do you mainly use social media? (a) Entertainment; (b) Educational Content; (c) Social Engagement; (d) News and Information; (e) Other
4. Do you feel that social media has had a positive impact on your studies and academic achievements? (a) Yes, Very Much; (b) Yes, A Little; (c) No
5. Do you get any help related to your studies (such as doubt clearing and study material) through social media? (a) Yes; (b) Sometimes; (c) No
6. According to you, can social media be used more effectively for educational purposes? (a) Yes; (b) No
7. Do you think excessive use of social media causes distraction in your studies? (a) Yes; (b) Sometimes; (c) No
8. Do you face any problems in time management because of social media? (a) Yes; (b) Sometimes; (c) No
9. Can social media use have a negative impact on your mental health? (a) Yes; (b) Sometimes; (c) No
10. Do students feel lonely and stressed due to excessive use of social media? (a) Yes; (b) Sometimes; (c) No

To examine the relationships between different above-mentioned quantitative variables, the obtained survey data were categorized (e.g., Yes/No and multiple-choice options) to specific numerical values. For this, variables were assigned numbers, and correlation analysis was done using MS Excel sheet.

## RESULTS

The study of the impact of social media on academic achievements of students using the above questionnaire has given very significant outputs. The results of above indicated that 93% of respondents use social media (Fig. 1), and the average time spent on social media daily was observed as 57% reported using it for 1–2 h, and 29.25% use it for 2–4 h and very less 5.5% use the same for 4–6 h, while 2.5% reported to use it for more than 6 h (Fig. 2). As per the above data, the main causes behind using social media include educational content (61.5%), news and information (45%), entertainment (44%), and social engagement (27.5%) (Fig. 3).

The analysis of impact of social media on academic performance revealed that about 50.75% of respondents believed that the social media has slightly positive effect, while 41% reported that this has a significant positive impact with reference to educational achievements (Fig. 4). As per the present findings, social media has also seen as a valuable tool for study assistance, as 71.5% have said that they receive help related to their studies, such as doubt clearing and access to study materials (Fig. 5). In addition, a very large percentage (88.75%) of respondents believe that social media can be used more effectively for educational purposes (Fig. 6).

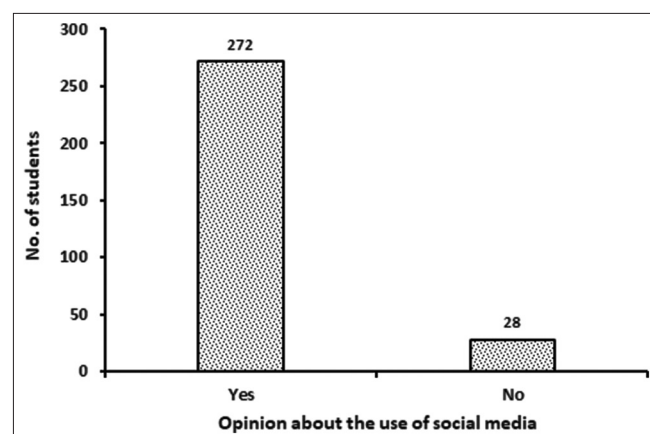


Fig. 1: Data showing the use of social media (such as Facebook, Instagram, Twitter, and WhatsApp) by students

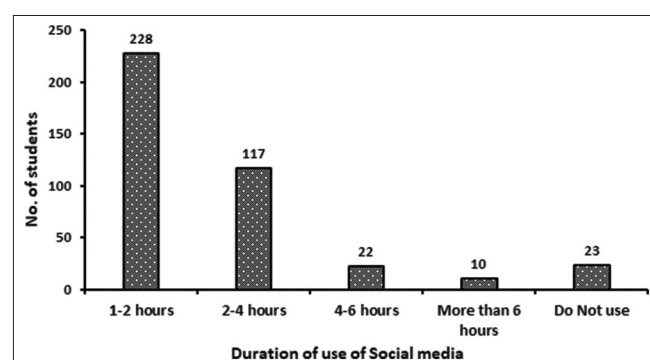


Fig. 2: Data showing the duration of students' use of social media per day

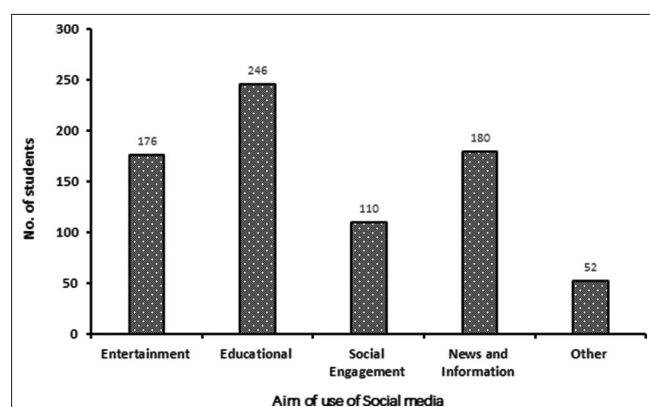


Fig. 3: Data showing the purpose of use of social media

On the other part, 54.75% of studied students have felt that extreme use of social media distracts them from their studies (Fig. 7), and 40.25% of the same population has seen to believe this affects their time management (Fig. 8). Furthermore, almost 52.5% of respondents have exhibited that social media has negatively impacted their mental health (Fig. 9). In terms of the use of ICT in education, 53% of the studied students have believed that the same has slightly improve their study skills, and 43.75% of students have felt drastic improvement in their academic abilities (Fig. 10).

The correlation heatmap (Fig. 11) has visually represented the correlation strength and direction of relationships among the mentioned surveyed variables, each cell in the matrix has depicted

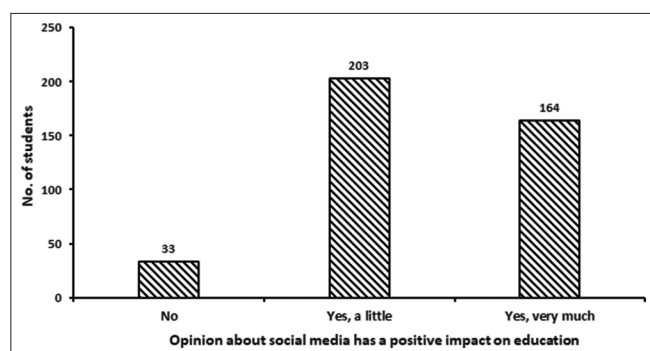


Fig. 4: Data showing the student's opinion about social media has a positive impact on his/her own studies and academic achievements

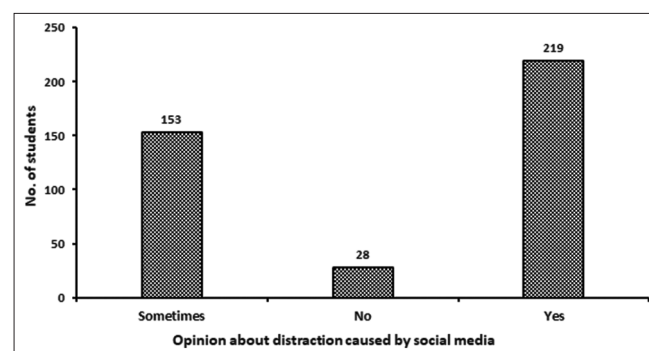


Fig. 7: Data showing the student's opinion regarding distraction caused by the excessive use of social media in studies

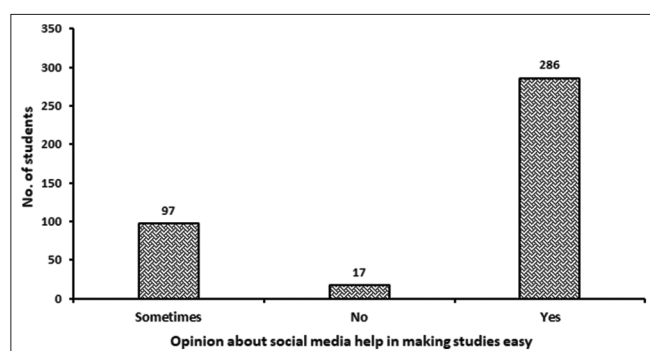


Fig. 5: Data showing the student gets help related to his/her studies (such as doubt clearing and study material) through social media

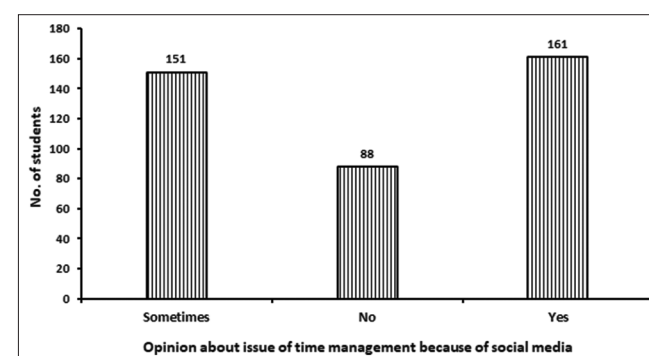


Fig. 8: Data showing the opinion of students regarding problems faces in time management because of social media

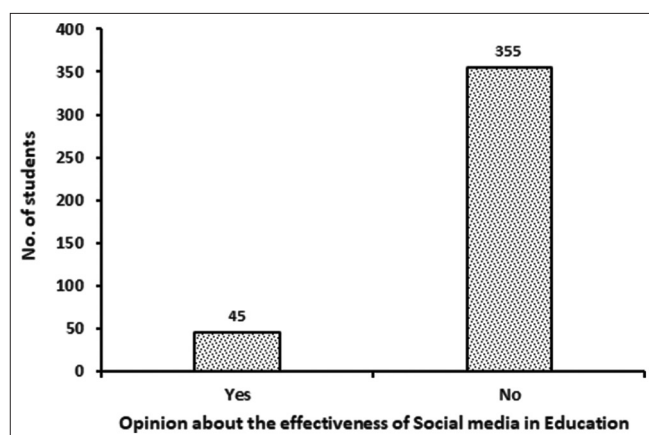


Fig. 6: Data showing the student's opinion regarding the effectiveness of social media for studies

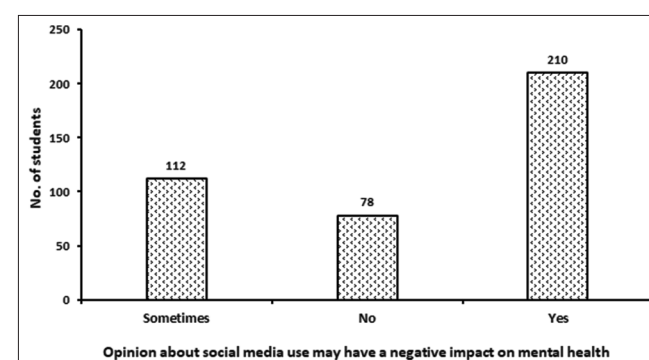


Fig. 9: Data showing the opinion of students regarding social media use may have a negative impact on mental health

correlation coefficient; where 1 or +1 indicated a perfect positive correlation, -1 indicated a perfect negative correlation, while different values between these two showed variable degree of linear correlation (Table 1); in negative and positive direction (Rao & Kalyani, 2022).

The visual analysis of the survey data provides deeper insights into students' social media usage patterns and their implications on their academic and personal lives. The above given stacked bar chart (Fig. 12a) has shown a strong positive correlation between distraction (Q.17) and time management issues (Q.18). The data reported higher levels of distraction from social media; students have shown a noticeable increase in time management difficulties. Moreover, the violin plot (Fig. 12b) has again shown a positive connection between

time spent on social media and its impact on mental health (Q.19), which demonstrates that higher usage tends to be associated with greater mental strain.

## DISCUSSION

The impact of social media on students is practically multifaceted and has been seen to exhibit both positive and negative effects which have been noticed to be influenced by various factors depending on individual to individual (Selwyn, 2009; Mishra and Rawat, 2015; Jha, 2024). As no earlier data has been documented in Indore city of Madhya Pradesh, India, the study of these dynamic parameters was crucial for optimizing the benefits along with the drawbacks associated with social media in the educational world.

As seen above, the findings of the present study have provided a worthwhile understanding of the relationship between time spent on social media and academic performance. The results have revealed

that a significant number of students have seen actively using social media, but its influence varied based on the nature, aim, and intensity of usage. For example, students who have used social media for academic purposes reported positive effects on their learning outcomes. Similar

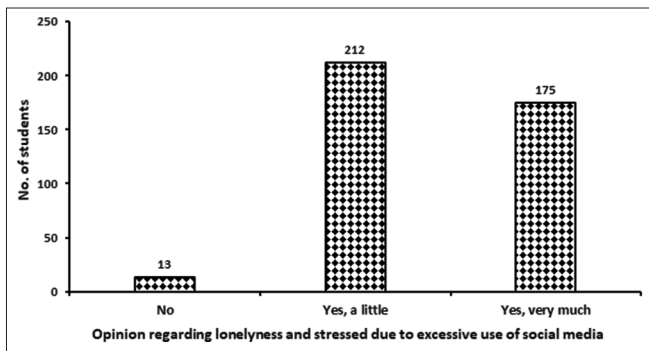


Fig. 10: Data showing the student's opinion regarding student's feeling of lonely and stressed due to excessive use of social media

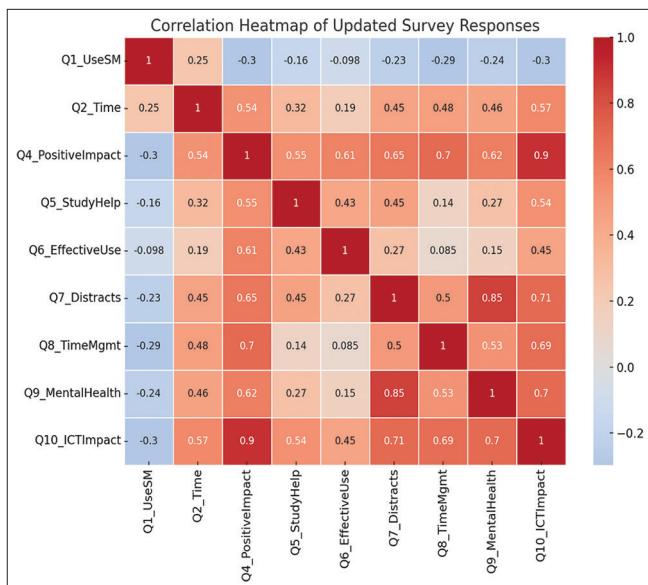


Fig. 11: The above correlation heatmap exhibits the survey responses. The visual representation of different factors such as social media usage, academic impact, distraction, and mental health have been correlated here with respect to different studied parameters

findings have been reported by Selwyn (2009), who mentioned that the use of social networking platforms for academic purpose has been seen to enhance peer interaction and educational engagement. In other research, Tess (2013) has also noted that social media could serve as an effective educational tool, promoting collaborative learning. However, the same analysis has also revealed a strong correlation between extended social media use and negative effects such as distraction and issues related to time management along with mental health concerns. The research of Kirschner and Karpinski (2010) has stated that students who frequently used social media such as Facebook, Twitter, Instagram, and YouTube have scored lower grades due to involvement in multitasking activities and lack of focus. In addition, Junco (2012) has emphasized that time spent on social media, especially for non-educational purposes, negatively impacted the score of students. In addition to this, the present study has also supported by the analysis of Woods and Scott (2016) where heavy social media use was seen to be linked with increased anxiety and reduced sleep quality, both of which can directly destabilize academic performance.

However, when social media is utilized for educational purposes, such as accessing academic content, engaging in group discussions, or sharing study materials it can positively influence learning outcomes, as emphasized by researchers like Selwyn (2009) and Tess (2013). Moreover, studies have highlighted that excessive and unstructured social media use is linked with poor time management and increased levels of stress and anxiety, which can indirectly impact academic motivation and performance (Woods and Scott, 2016). Ultimately, the impact of social media on academic achievement is determined not merely by the duration of use but by the purpose, pattern, and context in which it is integrated into students' daily routines (Agrawal *et al.*, 2021).

Recent research by Wang and Brown (2017), has demonstrated the beneficial impacts of social media for academic cooperation, learning, and knowledge dissemination. And parallely, the adverse consequences of the same have also been seen because of excessive usage for enjoyment, poor time management, gaming, video watching, engaging with reels, and other diversions (Bu'ulolo and Hulu, 2025). In addition, as per the study of Kumar (2024), beneficial outcomes of social media arise from platforms such as YouTube and WhatsApp, which enhance instructional cooperation and resource accessibility. Adverse consequences stem from diversions, ineffective time management, and mental health challenges (Timung *et al.*, 2024). The effect varies according to use, duration, and direction from parents and educators. In support of these findings, improved communication, better cooperation, and greater access to educational materials on social media platforms have also been noticed by other researchers (Woods and Scott, 2016; Agustina *et al.*, 2024; Jha, 2024).

On the contrary, detrimental consequences stem from excessive screen use, inadequate time management, exposure to cyberbullying,

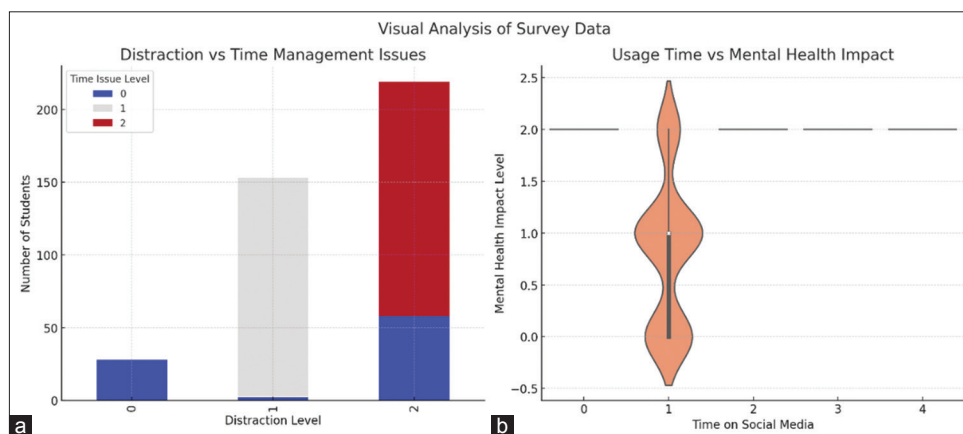


Fig. 12: (a) Stacked bar chart: Distraction versus time management (Q.17 vs. Q.18); (b) Violin Plot: Time use versus mental health impact (Q.12 vs. Q.19)



**Table 1: For correlation analysis, quantitative variables of survey data have been assigned numbers**

Variable	Description	Encoding
Q.1	Use of social media	No=0; Yes=1
Q.2	Daily use time	No=0; 1–2 h=1; 2–4 h=2; 4–6 h=3; >6 h=4
Q.4	Positive effect on academics	No=0; Yes, a little=1; Yes, very much=2
Q.5	Gets study help	No=0; Sometimes=1; Yes=2
Q.6	Can be more effective	No=0; Yes=1
Q.7	Distracts studies	No=0; Sometimes=1; Yes=2
Q.8	Time management issues	No=0; Sometimes=1; Yes=2
Q.9	Mental health impact	No=0; Sometimes=1; Yes=2
Q.10	ICT improves study	No=0; Yes, a little=1; Yes, very much=2

and disinformation, adversely affecting academic achievement and psychological health (Jha, 2024). In addition, the negative effects of social media have also been seen to link to the excessive and amorphous use of social platforms, such as TikTok or Instagram Reels, which have been seen to absorb too much time. Such usage has often resulted in procrastination, restlessness, and fragmented attention, reducing students' capacity to concentrate on academic tasks (Kirschner and Karpinski, 2010).

Although the present outcomes have offered valuable understandings and present status of the relationship between social media use and academic performance in the studied population, like every study, it has several limitations. First, there might be possibilities of response bias, and there may be possibilities that participants have underreported or overreported their social media usage or its effects or lack of accurate recall (Rosenman *et al.*, 2011; Susanti *et al.*, 2024). Second, the study has been conducted with a limited sample size of 400 students from a diverse population, so there might restrict the generalizability of the results to broader student populations across different regions, academic disciplines, subject areas, and background or cultural contexts (Mastrodicasa and Metellus 2013; Bryman, 2016). Furthermore, the cross-sectional character of the data makes it impossible for the research to prove causal links; even if correlations are found, it cannot be very certain that social media usage generates changes in academic performance or mental health (Wang and Brown, 2017). Furthermore, the current evidence has not distinguished the usage of other kinds of social media platforms or the particular material ingested by students, which might have varied impacts on cognitive engagement and learning outcomes (Manca and Ranieri, 2016). Future studies using mixed techniques, diverse samples, and longitudinal designs might, therefore, provide more complex and generally applicable results.

## CONCLUSION

The present study has explored the extent and the correlation between social media usage and academic performance among students, revealing a nuanced and context-dependent dynamic. The findings suggest that social platforms can enhance learning when used properly in limit, intentionally and productively. In addition, the present study has also identified significant negative effects associated with too much and/or unstructured use of the same. Hence, on the basis of observations, it can be concluded that the importance of social media usage patterns, student self-discipline, and the purpose behind such engagement serve as key factors and determine whether their impact is beneficial or harmful.

## AUTHOR FUNDING

None

## CONFLICTS OF INTEREST

None

## AUTHOR CONTRIBUTION

Prerana Sikarwar has played a pivotal role in the study's design, questionnaire preparation, and data collection phases. Dr. Jyoti Agrawal collected relevant studies on educational psychology and contributed to the interpretation of the data and the formulation of recommendations. Together, both authors have provided valuable insights into the complex relationship between social media usage and academic achievement.

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