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Social Networking Sites Addiction and Academic Anxiety: Exploring Their Association among Secondary School Students

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Abstract

The present study aimed to examine the relationship between social networking sites (SNS) addiction and academic anxiety among secondary school students. It also investigated the predictive effect of SNS addiction on academic anxiety and compared academic anxiety across low, moderate, and high levels of SNS addiction. A descriptive and correlational survey design was employed. The sample consisted of 350 students studying in Classes IX and X in selected government and non-government schools of Dehradun district, Uttarakhand. The data were analysed using Pearson's correlation, simple linear regression, and one-way analysis of variance (ANOVA). The correlation analysis revealed a significant positive relationship between SNS addiction and academic anxiety ($r = .696, p < .01$). Regression analysis indicated that SNS addiction was a significant positive predictor of academic anxiety, explaining 48.4% of the variance in academic anxiety ($R^2 = .484, \beta = .696, p < .001$). The group-wise results also showed an increasing trend in mean academic-anxiety scores across low ($M = 48.36$), moderate ($M = 56.82$), and high ($M = 67.45$) SNS-addiction groups. These findings highlight the association between SNS addiction and academic anxiety and emphasise the importance of promoting balanced social networking habits and effective self-regulation among secondary school students.

Keywords: social networking sites addiction, academic anxiety, secondary school students, correlation, regression, Self-regulation

1. Introduction

Social networking sites have become a regular part of students' communication, entertainment, and information-seeking activities. Platforms such as WhatsApp, Instagram, YouTube, Snapchat,

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Telegram, and Facebook allow students to maintain relationships, share content, and remain connected with peers. These services can be useful, but difficulties may arise when their use becomes excessive, repetitive, or hard to regulate.

Frequent checking of messages and updates can interrupt study routines and reduce the time available for academic tasks. Students may also compare themselves with others, feel pressure to remain connected, or worry about missing conversations and events. Such experiences may add to emotional strain, especially when students are preparing for examinations, completing assignments, or trying to meet academic expectations.

Academic anxiety refers to worry and apprehension associated with academic demands, including tests, performance expectations, and fear of failure. Although some anxiety can motivate preparation, persistent or intense anxiety may make it harder for students to concentrate and manage schoolwork. Excessive SNS use may be associated with academic anxiety through disrupted study time, reduced concentration, social comparison, and difficulties with self-regulation. The present study therefore examines SNS addiction and academic anxiety among secondary school students.

2. Review of Literature

Research has increasingly examined associations between social media use and young people's psychological well-being. A systematic review by Keles, McCrae, and Grealish (2020) reported links between social media use and depression, anxiety, and psychological distress among adolescents. Research has also associated problematic social media use with fear of missing out, loneliness, lower self-esteem, and difficulties in academic engagement (Jing et al., 2025; Landa-Blanco et al., 2024; Li & Ye, 2022).

Studies suggest that the consequences of SNS use depend not only on the amount of time spent online but also on the nature and purpose of engagement. Repeated checking, difficulty stopping, and continued use despite negative consequences are commonly discussed features of problematic use (Andreassen et al., 2016; Bányaí et al., 2017). Online social comparison may also contribute to negative feelings when students compare their own academic or social experiences with carefully selected posts shared by others (Appel et al., 2016). Heavy social networking has likewise been linked with negative consequences in adolescents, with fear of missing out acting as a mediator (Oberst et al., 2017), and high school students' social media use has been found to predict school engagement and burnout (Du & Wang, 2024).

Despite the growing literature, further research is useful in school settings, particularly in the Indian context, where students' experiences may vary by family expectations, and access to digital devices. The present study contributes by examining the association between SNS addiction and academic anxiety among secondary school students.

3. Statement of the problem

“Social Networking Sites Addiction and Academic Anxiety: Exploring Their Association among Secondary School Students”

4. Operational definitions of key terms

Social Networking refers to the use of internet-based digital platforms that enable individuals to create and maintain social relationships, communicate, exchange information, share content and participate in online communities. These platforms facilitate social interaction through features such as messaging, posting, commenting, multimedia sharing and virtual communication.

Academic Anxiety describes the feelings of worry, nervousness, apprehension and psychological discomfort experienced by students in academic situations. It may arise from academic performance, teacher interaction, subject learning and the overall school environment. In the present

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study, academic anxiety comprises teacher interaction anxiety, performance anxiety, subject anxiety and school environment anxiety.

5. Objectives of the Study

1. To examine the relationship between SNS addiction and academic anxiety among secondary school students.
2. To examine the predictive effect of SNS addiction on academic anxiety among secondary school students.
3. To compare academic anxiety across low, moderate, and high levels of SNS addiction among secondary school students.

6. Hypotheses

H₀₁: There is no significant relationship between SNS addiction and academic anxiety among students.

H₀₂: SNS addiction does not significantly predict academic anxiety among secondary school students.

H₀₃: There is no significant difference in academic anxiety among students with low, moderate, and high levels of SNS addiction.

7 Delimitations of the Study

1. The study was delimited to 350 secondary school students studying in Classes IX and X in selected government and non-government schools of Dehradun district, Uttarakhand.
2. The study was delimited to the selected variables of social networking addiction, academic anxiety among secondary school students.

8. Methodology

8.1 Research Design

The study used a descriptive and correlational survey design to examine SNS addiction and academic anxiety among secondary school students. Descriptive analysis was used to describe the pattern of SNS use and correlational analysis was used to examine the relationship between the two variables.

8.2 Variables

SNS addiction was the independent variable and academic anxiety was the dependent variable.

8.3 Sample and Sampling

The present study was conducted on a sample of 350 secondary school students studying in government and non-government schools in Dehradun, Uttarakhand. The sample was selected randomly from 10 schools, with 35 students selected from each school.

8.4 Tools Used

1. **Social Networking Addiction Scale** (Shahnawaz & Ganguly, 2020) was used to assess SNS addiction. Scores are reported for three dimensions: SNS impulsivity, SNS virtual interaction, and SNS negative consequences.
2. **Academic Anxiety Scale** (Singh & Sengupta) was used to assess academic anxiety.

9. Results and Interpretation

H₀₁: There is no significant relationship between SNS addiction and academic anxiety among students.

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Table 1

Pearson Correlation between SNS Addiction and Academic Anxiety (N = 350)

Variables	Correlation (r)	Significance
SNS Addiction	0.696**	at **0.01 level
Academic anxiety		

The Pearson correlation coefficient was calculated to examine the relationship between SNS addiction and academic anxiety among students. The obtained correlation coefficient was $r = .696$, $p < .01$, indicating a statistically significant and positive relationship between the two variables. The magnitude of the correlation suggests a moderately strong to strong positive association between SNS addiction and academic anxiety. This implies that students with higher levels of SNS addiction tend to experience higher levels of academic anxiety. The finding indicates that increased SNS addiction is associated with greater academic anxiety among students. Since the obtained relationship is significant at the 0.01 level, the null hypothesis (H_01), which states that there is no significant relationship between SNS addiction and academic anxiety among students, is rejected. Thus, the findings suggest that SNS addiction and academic anxiety are significantly and positively related among students. H_02 : SNS addiction does not significantly predict academic anxiety among secondary school students.

Table 2

Simple Linear Regression of Academic Anxiety on SNS Addiction

Predictor	R	R ²	Adjusted R ²	B	t	p
SNS addiction	.696	.484	.483	.696	18.09	< .001

Significant at the .001 level

Note. Dependent variable: academic anxiety

The regression analysis was conducted to examine the predictive effect of SNS addiction on academic anxiety among students. The results revealed that the correlation coefficient (R) was .696, indicating a positive relationship between SNS addiction and academic anxiety. The coefficient of determination (R²) was .484, suggesting that SNS addiction accounted for approximately 48.4% of the variance in academic anxiety. The adjusted R² value was .483, indicating that the model explained approximately 48.3% of the variance after adjustment. The standardized regression coefficient ($\beta = .696$) showed that SNS addiction had a positive predictive effect on academic anxiety. The obtained t-value of 18.09 was statistically significant at the .001 level ($p < .001$). This indicates that SNS addiction significantly predicts academic anxiety among students. Therefore, the null hypothesis stating that there is no significant predictive effect of SNS addiction on academic anxiety among students is rejected. The findings suggest that higher levels of SNS addiction are associated with higher levels of academic anxiety among students.

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H₀₃: There is no significant difference in academic anxiety among students with low, moderate, and high levels of SNS addiction.

Table 3

One-Way ANOVA of Academic Anxiety by Level of SNS Addiction (N = 350)

SNS-addiction level	N	Mean	SD	F(2,347)
Low	55	48.36	6.24	163.65
Moderate	80	56.82	7.11	
High	215	67.45	8.03	

Significant at 0.01

Mean academic-anxiety scores rose steadily from the low group ($M = 48.36$) to the moderate group ($M = 56.82$) and the high group ($M = 67.45$), and the group difference was statistically significant, $F = 163.65$, $p < .001$. Students with higher SNS addiction therefore reported higher academic anxiety. The spread of scores also increased with SNS-addiction level (SD from 6.24 to 8.03). Hence, the null hypothesis H₀₃ is rejected.

10 Summary of Hypothesis Testing

Table 4

Summary of Hypothesis Testing

Hypothesis	Statistical test	Result	Decision
H ₀₁ : No significant relationship between SNS addiction and academic anxiety	Pearson's correlation	$r = .696$, $p < .01$	Rejected
H ₀₂ : SNS addiction does not significantly predict academic anxiety	Simple linear regression	$\beta = .696$, $t = 18.09$, $p < .001$	Rejected
H ₀₃ : No significant difference in academic anxiety across low, moderate, and high levels of SNS addiction	One-way ANOVA	$F = 163.65$, $p < .001$	Rejected

11 Discussion

The findings of the present study indicate a significant positive relationship between social networking sites (SNS) addiction and academic anxiety among secondary school students. The correlation analysis revealed a positive correlation coefficient of $r = .696$ ($p < .01$), indicating that students with higher SNS-addiction scores tended to report higher levels of academic anxiety. This finding suggests that greater engagement with social networking sites is associated with increased concerns related to

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academic performance, examinations, and schoolwork. However, this relationship should be interpreted as an association rather than evidence that SNS addiction directly causes academic anxiety.

The regression analysis further indicated that SNS addiction was a statistically significant positive predictor of academic anxiety ($R = .696$, $R^2 = .484$, adjusted $R^2 = .483$, $\beta = .696$, $t = 18.09$, $p < .001$). The model explained approximately **48.4% of the variance** in academic anxiety, suggesting that SNS-addiction scores accounted for a substantial proportion of the observed variation in academic-anxiety scores within the present sample. Nevertheless, academic anxiety may also be associated with other factors, including study habits, family expectations, examination pressure, self-regulation, and individual differences. Therefore, the predictive findings should not be interpreted as establishing a causal relationship between the two variables.

The comparison of academic anxiety across different levels of SNS addiction also revealed a clear pattern. Students in the low SNS-addiction group obtained a mean academic-anxiety score of 48.36, compared with 56.82 in the moderate group and 67.45 in the high group. The reported ANOVA result indicated statistically significant differences among the three groups. This pattern suggests that higher levels of SNS addiction were associated with higher academic anxiety in the sample. However, further post-hoc comparisons would be required to establish which specific pairs of groups differed significantly.

Overall, the findings highlight the importance of promoting balanced social networking habits and effective study routines among secondary school students. Schools and families may encourage students to monitor their online activities, maintain planned study periods, minimise unnecessary interruptions, and develop appropriate self-regulation skills. Teachers and school counsellors may also provide support to students experiencing academic pressure. Future research using longitudinal designs, larger and more diverse samples, and additional variables such as self-regulation, fear of missing out, and examination stress could provide a clearer understanding of the relationship between SNS addiction and academic anxiety.

12. Educational Implications

The results suggest that schools and families can support students by:

- Encouraging balanced and purposeful use of social networking sites;
- Planning fixed study periods and regular breaks, so that checking messages does not interrupt study;
- Helping students monitor their own SNS use and build self-regulation; and
- Attending to students who report long daily use, since about half of the sample fell in the addicted or severely addicted categories.
- Future studies could include mediating variables such as self-regulation, fear of missing out, and self-esteem, and could compare larger and more varied samples.

13. Suggestions for Further Study

1. Further research may examine the role of self-regulation, fear of missing out, and self-esteem in the relationship between SNS addiction and academic anxiety.
2. Longitudinal and intervention-based studies may be conducted to examine changes in SNS addiction and academic anxiety over time.

14. Conclusion

The study found a positive relationship between SNS addiction and academic anxiety among secondary school students. The regression and group comparisons also suggest that academic anxiety tends to be higher among students with greater SNS-addiction scores. Schools and families may support students

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by encouraging balanced online habits, planned study periods, regular breaks, and self-monitoring of SNS use.

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