

## Original Article

## Academic Procrastination among Nursing Students: The Role of Social Media Addiction

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### Abstract

**Objective:** This study examined the relationship involving social media addiction and academic procrastination among nursing students, along with the moderating roles of gender and Hostel versus non-hostel residence

**Study Design:** Across-sectional survey was conducted.

**Place and duration of study:** In December 2025, in Islamabad, a cross-sectional survey was conducted using a convenience sampling technique with 247 nursing students.

**Material and Methods:** In December 2025, in Islamabad, a cross-sectional survey was conducted using a convenience sampling technique with 247 nursing students. The Bergen Social Media Addiction Scale and an adapted short form of the procrastination scale were administered to measure social media addiction and academic related procrastination. For analysis, which included descriptive statistics, Pearson correlation and moderation analysis, IBM SPSS 29 was used.

**Results:** Social media addiction was positively associated with academic procrastination ( $r \approx .611$ ,  $p < .001$ ). Gender significantly moderated this relationship ( $\Delta R^2 = .013$ ,  $p = .022$ ), with a slightly stronger association among male students. Hostel versus non-hostel residence did not significantly moderate the relationship ( $\Delta R^2 < .001$ ,  $p > .05$ ).

**Conclusion:** This study builds on the existing literature by extending the association between social media addiction and academic procrastination to a nursing population. The role of gender and residence in influencing this relationship was also explored. The findings may support strategies aimed at managing students' social media engagement patterns and improving academic functioning in nursing education.

**Keywords:** Social media addiction; academic procrastination; nursing students; gender moderation; Hostel vs. non-hostel residence; Pakistan

### 1. Introduction

The increasing number of social media platforms has enabled university students to interact, gain information, and go about their day-to-day activities in new ways. In fact, using social media is becoming an increasingly significant component of student life.<sup>(1)</sup> While these platforms offer clear educational and social benefits, their pervasive integration into everyday routines has raised growing concerns regarding students' capacity to manage attention, emotional regulation, and academic responsibilities. These concerns are particularly relevant in professional education programs like nursing, where students in undergraduate and certificate-level nursing

programs are expected to meet competing academic demands, undergo clinical training, and deal with emotionally demanding learning environments. The ineffective regulation of social media use in such contexts can potentially put academic self-management and mental health at greater risk. While research specifically targeting nursing students is limited, there is enough evidence from college, university, and medical students to provide a strong conceptual and evidence base for understanding how problematic social media use may interfere with academic functioning in a similarly demanding educational setting.

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According to Nguyen et al. (2025), college students spend an extended amount of time on social media, which affects their mental and academic performance. Studies on excessive social media use have identified psychological functioning issues that are relevant to academic self-management. <sup>(2)</sup> A narrative review carried out by Zubair et al. (2023) demonstrated that overindulgence in digital platforms is linked with anxiety, stress, sleep disturbances, and emotional dysregulation. <sup>(3)</sup> All of these are associated with the student's ability to cope with academic demands or self-regulate goal-directed behavior. The way individuals engage with digital platforms yields differing academic outcomes. It has been established that mostly the social media use primarily aimed at increasing positive feelings and connecting with others has a link with cognitive and emotional withdrawal from learning activities. The cognitively oriented use shows the opposite pattern, which is lower burnout with more adaptive academic outcomes. <sup>(4)</sup> Besides mental health pathways, studies have indicated a negative association between unreflective social media use and academic achievement through behavioral and emotional channels relevant to academic self-management. According to Gong et al. (2025), extensive social media use may serve as a reason for poor academic performance due to an increasing fear of being judged, along with a feeling of losing something special and enjoyable that obstructs the maintenance of attention to an academic task. <sup>(5)</sup> Studies that have focused on social media addiction more directly revealed that addictive patterns of use are associated with insufficient academic engagement, which provides a clear behavioral basis for academic procrastination. <sup>(6)</sup>

Academic procrastination refers to the behavior of students delaying or failing to complete academic tasks by the designated deadline. According to Peixoto et al. (2021), Rabin et al. (2011), and Steel and Klingsieck (2016), such behavior can be attributed to problems of time management, limitations in task-execution skills, insufficient self-regulatory awareness, and low acceptance of

one's duty and uncertainty to meet success. <sup>(7,8)</sup> It has been noted in previous research that academic procrastination is due to ineffective self-regulatory coping, which leads to poor academic performance. <sup>(9)</sup> Recent research has shown that students who are pathologically engrossed in social media are more vulnerable to procrastinate and not regulate their academic behavior properly. <sup>(10)</sup> All these studies show that impulsive use of online social networks affects the postponement of required academic activities. Contextual factors may additionally shape these relationships. Where a person lives can affect their daily routines, supervision, and technology use. Research conducted in Pakistan indicates that medical students residing in hostels exhibit more maladaptive social media use and poorer academic management than their non-hostel counterparts (Naushad et al., 2025). Although mainly from medical students, these findings are useful for nursing education, given the similarities of experiences and the structure of training situations. Whereas research on compulsive social media use and procrastination in academic activities has steadily increased, not much research has focused on students doing undergraduate and certificate nursing programmes, and very few studies simultaneously examined individual-level factors, such as gender, alongside contextual factors when exploring the academic consequences of problematic social media use within nursing education.

Based on these gaps, this study looks at how social media addiction is related to academic procrastination among students in undergraduate and certificate-level nursing programs. Furthermore, the study will examine whether this relationship is moderated by gender and Hostel vs. non-hostel residence. The study attempts to expand the current understanding of the translation of problematic social media behaviors into academic behaviors in an under-researched nursing student population, with insight from broader student literature guiding the interpretation.

### 1.1 Significance of Social Media Addiction in Academic Functioning

Social media addiction is conceptualized as poor regulation of its use that comprises the completion of routine tasks (Blackwell et al., 2017). Many university students engage in diverse online activities that sometimes induce a substantial increase in the use of digital platforms and, in some cases, disproportionate dependence (Gulnar, 2025; Salari et al., 2025). Various studies conducted within the nursing education environment show that nursing students are highly addicted to social media. It is reported that the addiction varies from mild to moderate to severe.<sup>(11)</sup> Such usage patterns can harm the learning process by diminishing academic motivation and impairing the ability of students to achieve targets related to academic work.

Rabin et al. (2011), along with Steel and Klingsieck (2016) and Peixoto et al. (2021) have posited that academic procrastination is the students' tendency to postpone or miss deadlines for academic tasks, which can be attributed to ineffective time management, inadequate task-execution skills, limited self-regulatory awareness, low sense of responsibility, as well as worrying about achieving one goal.<sup>(7,8)</sup> According to Shi (2023), academic procrastination in higher education is frequently associated with low academic motivation, low task engagement, and low self-discipline to maintain focus. Earlier research has established the positive association linking social media addiction with academic procrastination.<sup>(12)</sup> This relationship is further supported by some recent studies.<sup>(13,14,15)</sup>

Similar findings have been reported among medical students, where compulsive engagement with digital platforms emerges as a significant predictor of delays in academic-related activities (Naushad et al., 2025). This association was not extensively studied among nursing students. There is hence a need to validate this link in nursing students. Therefore, the current study advances the subsequent hypothesis.

H1: Social media addiction is positively associated with academic procrastination among nursing students.

## 1.2 The Association of Gender and Residence with Problematic Social Media Use and Academic Dysregulation

Previous investigations have highlighted the influence of individual and contextual characteristics on compulsive social media use and academic delay. Naushad et al. (2025) reported evidence from medical colleges in Pakistan and suggested that male students scored higher on social media addiction as compared to female students, and hostel residents were more vulnerable to social media addiction and academic procrastination as compared to non-hostel resident students.

According to Aslan and Yasar (2020), male university students have been shown to be more addicted than female university students, if a comparison is made in the consumption of social media use. The study of smartphone addiction (which is a behavioral antecedent of social media addiction) also brings out the gender-specific cognitive and behavioral patterns that are relevant for academic functioning.<sup>(16)</sup> Through a network analysis, Song et al. (2025) showed that male students evidenced cognitive preoccupation as the primary manifestation of smartphone addiction, while female students exhibited excessive use beyond intended limits. Based on the preceding discussion, gender and residential status may help explain variability in academic delay and problematic social media use; accordingly, the present study examines gender and residence as moderators of the association between disproportionate social media use and study-related delays.<sup>(17)</sup>

H2: Gender moderates the association of social media addiction with academic procrastination, such that the positive association is stronger among male nursing students than among female nursing students.

H3: Hostel versus non-hostel residence moderates the association of social media addiction with academic procrastination, with a stronger association among hostel-residing nursing students than among non-hostel students.

## 2. Materials & Methods

The current research used a cross-sectional quantitative survey design. Data were collected from nursing institutes located in Islamabad from December 10 to December 20, 2025. We used convenience sampling among the students enrolled in different semesters of their nursing program. A total of 275 nursing students were approached, and 247 took part in the survey, resulting in a response rate = 89.8%. The sample was drawn from male and female nursing students as well as hostel and non-hostel students. At the time of data collection, all participants were full-time nursing students.

**Inclusion Criteria:** (1) Full-time nursing students enrolled in undergraduate or certificate-level programs; (2) students from any semester, of either gender; hostel or non-hostel students; (3) students who provided informed consent and completed the questionnaire.

**Exclusion Criteria:** (1) Students not enrolled as full-time nursing students; (2) students who declined participation; (3) questionnaires with substantial missing or incomplete data, impaired consciousness, or severe psychiatric conditions.

### Procedure and Ethical Considerations

Before starting data collection, ethical approval and permission were obtained from the Ethical Review Committee (ERC) International Islamic University, Islamabad. Those who participated in the study were given information about the objectives of the study and confirmed that their participation was of their free will. They were also given assurance that responses would be kept confidential and would not be disclosed openly to the public. Data were collected in person during scheduled class sessions. Students completed questionnaires, which took about 10 minutes. No explicitly identifiable information was obtained,

and only completed questionnaires were used in the study. All study procedures were conducted in accordance with the ethical guidelines of human research.

### Measures

**Social Media Addiction.** To measure participants' engagement with addictive social media behaviors, the Bergen Social Media Addiction Scale (BSMAS; Andreassen et al., 2016) was employed.<sup>(18)</sup> This short instrument includes six indicators measuring central addiction-related tendencies, as represented by persistent obsessive thinking, escalating use, mood-related reliance, difficulty reducing use, discomfort when access is restricted and interference in daily functioning. Respondents answered on a five-point frequency scale of very rarely (1) to very often (5), which was further aggregated to reflect addictive behaviours on social media. The scale demonstrated an acceptable internal consistency according to reliability analysis in the current study (Cronbach's  $\alpha = .79$ ).

**Academic Procrastination.** We assessed students' procrastination with a brief version of the Procrastination Assessment Scale for Students (PASS; Solomon & Rothblum, 1984).<sup>(19)</sup> Because PASS has multiple facets, we adapted four items that were specifically related to core academic procrastination behaviours from the two-day delay domains of the original scale. Two items evaluated procrastination in regular academic activities, such as reviewing lecture notes, checking slides, and preparing quizzes or tests in class, whereas the other two items evaluated procrastination regarding studying major exams. All items that assessed reading assignments, administrative tasks related to the academic (e.g., course registration, form filling), and the section inquiring about

reasons-for-procrastination were eliminated from the questionnaire as they were not relevant or consistently applicable to nursing education. Respondents scored their responses on a five-point Likert scale. Higher scores indicate a greater tendency for procrastination. In the current sample, the adapted four-item scale was found to be adequately internally consistent (Cronbach’s  $\alpha = .73$ ).

**Data Analysis**

IBM SPSS version 29 was used to perform all statistical analyses. All required measures of central tendency and measures of dispersion were used to summarize sample demographic characteristics and study variables. Normality assumptions were checked using skewness and kurtosis values ( $\pm 1.0$ ) and Q–Q plots, which indicated acceptable distribution, before conducting inferential analysis. Using residual plots, the linearity assumption and homoscedasticity were subjected to tests. Moreover, multicollinearity was evaluated through checks on tolerance values and variance inflation factors (VIFs). No violations were detected. Pearson correlation analysis was applied to determine the strength of the relationship between the study variables. Moderation analyses were performed to assess the study hypotheses using the IBM SPSS PROCESS macro. The interaction effects were evaluated via  $\Delta R^2$  in PROCESS macro, F-change statistics, regression coefficients, and p-values. Statistical significance was set at  $p < .05$ .

**3. Results**

**Demographic Characteristics of the Participants**

A total of 247 nursing students were included in the final sample. There were more males (55.9%) among the participants than females (44.1%). Most

participants were enrolled in the BSN (Bachelor of Science in Nursing) program (66.0%), while the rest were enrolled in the Certified Nursing Assistant (CNA) program (34.0%). Participants were selected from various academic semesters, with the greatest percentage in the first semester (38.5%). The sample had a mean age of 19.85 years (SD = 1.54), with ages ranging between 16 and 25 years. Table 1 presents a summary of these demographic characteristics.

Table 1. Demographic Characteristics of the Study Sample (N = 247)

Variable	Category	n	%
Gender	Male	138	55.9
	Female	109	44.1
Program	BSN	163	66.0
	CNA	84	34.0
Semester	1st	95	38.5
	2nd	55	22.3
	3rd	42	17.0
	4th	55	22.3
Age (years)	Mean (SD)	19.85 (1.54)	—
	Range	16–25	—

The descriptive statistics pertaining to the primary study variables (social media addiction and academic procrastination) are summarized in Table 2. The mean score for social media addiction was 18.64 (SD = 3.28). The mean score for academic procrastination was 12.95 (SD = 2.77). The scores on both variables had a wide range, which is sufficient to carry out correlational and moderation analysis.

Table 2. Descriptive Statistics of Study Variables (N = 247)

Variable	N	Min	Max	Mean	SD
Social Media Addiction (SMA)	247	6	29	18.64	3.28
Academic Procrastination (AP)	247	4	20	12.95	2.77

**Reliability Analysis**

The study assessed the reliability of measures for internal consistency. The present sample demonstrated good internal consistency for the Bergen Social Media Addiction Scale (Cronbach’s  $\alpha = .79$ ). The adapted academic procrastination measure also exhibited acceptable internal consistency (Cronbach’s  $\alpha = .73$ ), which is considered adequate given the short four-item structure of the scale.

**Correlation Analysis**

Pearson correlation analysis showed that there is a strong positive relationship between social media addiction and academic procrastination. Table 3 displays a significant correlation ( $r = .611, p < .001$ ) between social media addiction and academic procrastination.

Table 3. Pearson Correlation between Social Media Addiction and Academic Procrastination (N = 247)

Variable	1	2
1. Social Media Addiction	—	
2. Academic Procrastination	.611***	—

\*Note. \*\*\* $p < .001$ .

**Moderation Analysis: Gender**

Moderation analysis revealed that gender significantly altered the association between social media addiction and academic procrastination. According to Table 4, the model was significant,  $R^2 = .395, F(3, 243) = 52.96, p < .001$ , indicating that 39.5% of the variance in academic procrastination was explained by the model. Social media addiction had a significant positive main effect on academic procrastination ( $B = 0.491, SE = 0.043, t = 11.40, p < 0.001$ ). Gender also showed a significant main effect ( $B = -0.586, SE = 0.283, t = -2.07, p = 0.040$ ). The interaction between

social media addiction and gender was statistically significant ( $B = -.201, SE = .088, t = -2.30, p = .022$ ), indicating a moderating effect. The interaction term explained additional variance ( $\Delta R^2 = .013, \Delta F(1, 243) = 5.28, p = .022$ ). Simple slope analysis showed a positive association between social media addiction and academic procrastination for both genders, with a stronger association among male students ( $B = .580, SE = .055, p < .001$ ) compared to female students ( $B = .378, SE = .068, p < .001$ ).

Table 4. Moderation Analysis Examining Gender as a Moderator of the Relationship between Social Media Addiction and Academic Procrastination (N = 247)

SMA × Gender             $-.201$   $.088$   $-2.30$   $.022$   
     $-.374$   $-.029$

Predictor	B	SE	t	p	95% Lower CI	95% Upper CI
Constant	12.884	.141	91.71	< .001	12.607	13.160
Social Media Addiction (SMA)	.491	.043	11.40	< .001	.406	.576
Gender	-.586	.283	-2.07	.040	-1.144	-.028
SMA × Gender	-.201	.088	-2.30	.022	-.374	-.029

Note. CI = confidence interval.

**Moderation Analysis: Hostel vs. non-hostel residence**

Moderation analysis revealed that residence (hostel vs non-hostel) did not change the relationship between social media addiction and academic procrastination. According to Table 5, the model was significant,  $R^2 = .394, F(3, 242) = 52.47, p < .001$ , explaining 39.4% of academic procrastination. Social media addiction had a significant positive main effect on academic procrastination ( $B = .530, SE = .044, t = 12.01, p < .001$ ). Hostel vs. non-hostel residence did not have a significant main effect ( $B = -.444, SE = .278, t = -1.60, p = .111$ ). The interaction between social

media addiction and hostel status was not significant ( $B = -.048$ ,  $SE = .089$ ,  $t = -0.54$ ,  $p = .590$ ), and the interaction term did not add significant explained variance ( $\Delta R^2 = .001$ ,  $\Delta F (1, 242) = 0.290$ ,  $p = .590$ ).

Table 5. Moderation Analysis Examining Hostel vs. non-hostel residence as a Moderator of the Relationship between Social Media Addiction and Academic Procrastination (N = 247)

Predictor	B	SE	t	p	95% CI	
					Lower	Upper
Constant	12.946	.139	93.37	<.001	12.673	13.220
Social Media Addiction (SMA)	.530	.044	12.01	<.001	.443	.617
Hostel vs. non-hostel residence	-.444	.278	-1.60	.111	-.991	.103
SMA × Hostel vs. non-hostel residence	-.048	.089	-0.54	.590	-.224	.127

Note. CI = confidence interval.

#### 4. Discussion

According to the present study, social media addiction has a positive association with academic procrastination in undergraduate nursing students. This pattern is consistent with earlier research indicating that problematic social media use is linked to delays in academic task initiation and completion across diverse university populations.<sup>(13,14,15)</sup> The present study confirms this link within a nursing sample and underscores problematic social media use as an important behavioural risk factor in professional training contexts that require self-regulation and prompt engagement in tasks. Instead of this association being attributed to displacement in time, it can be interpreted as a behavioural pattern associated with coping. When students use social media repeatedly to cope with academic pressure or emotional discomfort, it becomes habitual and part of their general coping repertoire. Gender somewhat affected the link between addiction to social media and academic procrastination. While the association was shown for both males and females, it was slightly stronger for the male nursing students. This moderation is due to differences in the strength of the association rather than category

differences in vulnerability. The gender effect can be interpreted through variations in the coping pathways through which problematic use of social media causes academic delay. Hostel vs. non-hostel residence does not strengthen or weaken the relationship between students’ engagement with digital platforms and their academic management habits, suggesting that the same behavioural chain may operate in both hostel and non-hostel students. As a group, nursing students are subject to pressures such as academic stress, emotional labour, and expectations regarding responsibility, time management, and task completion. Under such conditions, the use of social media for quick regulation of emotions may have serious consequences. Even small losses of self-regulation or repeated micro-level task procrastination can accumulate into meaningful academic procrastination, independent of the context.

#### Conclusion:

This research substantiates that problematic social media use has a significant relationship with academic procrastination in nursing students. Gender has a small moderating effect, and its effect is slightly more pronounced in the male gender, while place of hostel versus non-hostel residence has no significant effect on this relationship. The results of this study have important implications in that they indicate that the relationship is mainly due to psychological factors. Even though the difference is small, it indicates that gender-specific interventions may still have some benefits. Building on the current investigation, future research should focus on a more in-depth exploration of nursing-specific mechanisms, such as styles of coping, delay processes, and avoidance behaviors, for better understanding maladaptive social media use and academic dysfunctioning.

#### Limitations

There are some limitations of the present study that warrant acknowledgment. Due to the cross-sectional survey design, causality cannot be inferred. Longitudinal studies may be beneficial to investigate such possibilities. In addition, common method

variance and reporting bias can arise from self-reported use of social media and academic behaviours, as they do not adequately represent actual use or task engagement. For future studies, it would be prudent to incorporate an objective indicator to increase measurement precision, such as trace data. The research findings are based on undergraduate nursing students from a particular culture and educational system, and the use convenience sampling may limit their generalisability of the results. While the theoretical mechanisms reviewed were found to operate similarly across different populations, more research is needed to explore coping-related and self-regulatory processes in nursing students for their disciplinary specificity. Moreover, while we investigated the moderation impact of gender and hostel versus non-hostel residence status, we did not assess key psychological mechanisms (coping styles, emotion regulation capacity, and task-avoidance tendencies) directly; therefore, the hypothesized pathways are only theoretically inferred. To conclude, the observed moderation effects were negligible, which is consistent with the multifactorial characteristics of academic behaviour. Thus, maladaptive digital platform engagement may represent one of several psychosocial factors.

#### Disclosure /Conflict of interest:

Authors declare no conflict of interest.

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