

Thai Social Science Journal**Original Article**

Received: 2 March 2026

Revised: 17 March 2026

Accepted: 26 April 2026

Facebook addiction among Rajshahi University students: A Cross-sectional studyAbu Sayed Md. Al Mamun^{1*}, Jannatul Nayem¹, Farhana Hasan¹ and Md. Golam Hossain¹**Abstract**

Background: Social media platforms like Facebook have become integral to students' daily routines, offering opportunities for communication, academic collaboration, and social interaction. However, their excessive use can negatively influence academic performance, disrupt time management, and contribute to mental health challenges. This study investigates the prevalence and associated factors of Facebook addiction among students at Rajshahi University in Bangladesh.

Method: Utilizing a cross-sectional design, data were collected from 400 randomly selected students residing in both male and female University halls. The research employed a structured, pre-tested questionnaire incorporating the Bergen Facebook Addiction Scale (BFAS) to categorize students into three addiction levels: not addicted, mildly addicted, and addicted. Analytical tools included descriptive statistics, graphical representations, Chi-square tests, and multinomial logistic regression.

Results: The findings revealed that 28.25% of students were classified as addicted, 53.50% were mildly addicted, and the remaining 18.25% were not addicted. Moreover, male students were significantly more prone to Facebook addiction than female students. In addition, students with lower GPAs were more likely to be moderately or severely addicted. Furthermore, students whose mothers had lower levels of education exhibited higher levels of addiction. Interestingly, students from joint families experienced a lower risk of moderate addiction compared to those from nuclear families. The study also identified behavioral factors such as the duration of Facebook use and the number of online friends as strong predictors of addiction.

Conclusion: In conclusion, the results showed that Facebook addiction among students is affected by academic, family, and behavioral factors. To deal with this problem, the University authorities and the government of Bangladesh should take steps such as offering digital literacy

¹ Department of Statistics, University of Rajshahi, Bangladesh

* Email: mithun_stat@ru.ac.bd

programs, providing counseling services, and encouraging family involvement to help students use social media in a healthier way.

Keywords: Addiction, University students, BFAS scale, logistic regression.

Introduction

In recent years, Facebook addiction has become a significant concern, especially among University students who are increasingly spending time on the platform. While social media platforms like Facebook have revolutionized communication—allowing students to stay connected with peers and access a wealth of information—excessive use can lead to compulsive behavior, often referred to as Facebook addiction (Koc & Gulyagci, 2013). This addiction can interfere with students' academic responsibilities, mental health, and social interactions, posing long-term challenges to their overall well-being and future prospects (Andreassen et al., 2012).

The phenomenon of Facebook addiction is particularly relevant in the context of University students, as they are more likely to use social media extensively for both academic and non-academic purposes (Al-Menayes, 2015). The pressures of academic life, coupled with the constant distraction of social media, make students vulnerable to addictive behaviors that can compromise their productivity, time management, and academic performance (Aparicio-Martínez et al., 2020). Additionally, the mental health consequences of Facebook addiction—such as anxiety, depression, and social isolation—can further impact their ability to cope with academic challenges and maintain meaningful, face-to-face relationships (Kuss & Griffiths, 2017).

This study focuses on Rajshahi City, a major urban area in Bangladesh known for its educational institutions, particularly Rajshahi University, which boasts a large student population. By examining Facebook addiction within this specific context, the research seeks to uncover the prevalence and impact of this issue among University students in the region. While social media addiction has been extensively studied in various settings globally, limited research has been conducted on this topic in Rajshahi City, leaving a critical gap in understanding the experiences of students in this urban environment (Rahman & Yeasmin, 2022).

Facebook addiction affects students' academic performance, mental health, social interactions, and perceptions of privacy and data security (Satici & Uysal, 2015). Additionally, the study seeks to explore potential demographic or behavioral factors that may contribute to Facebook addiction among University students in Rajshahi City. Overall, this research aims to contribute to the broader conversation on Facebook addiction among University students and its implications for individual well-being and societal development.

Facebook addiction among University students has emerged as a significant concern due to its potential negative impact on academic performance, mental health, social interactions, and data

privacy. Firstly, excessive Facebook use can detrimentally affect students' academic performance (Rouis et al., 2011). Secondly, Facebook addiction has been associated with various mental health issues, including stress, loneliness, and depression (Koc & Gulyagci, 2013). These mental health concerns not only harm individuals' well-being but also hinder their overall productivity and potential contributions to society. Furthermore, excessive Facebook use may lead to a decline in face-to-face social interactions among University students, which can have long-term consequences for their personal and professional lives, thereby impacting national interests by hindering the development of a socially competent and collaborative workforce (Kuss & Griffiths, 2017). This study aims to explore the prevalence and effects of Facebook addiction among University students in Rajshahi City.

Material and Methods

Study area and design:

Rajshahi University of Bangladesh was the study area, and the study population were included all students enrolled at this University. This study followed a cross-sectional design and data collection for this project occurred between January 01, 2025, and February 29, 2025.

Sample Size Determination

All students in Rajshahi University were considered as the population for this study, which included approximately 34,000 students. To determine the sample size needed, we used a formula: $n = N/(1 + N d^2)$. In this formula, n represents the required sample size, N is the population size (in this case, 34,000 students), d is the chosen marginal error (set at 0.05) and 95% confidence level was considered. The formula indicated that 396 samples were required for the study, but we opted for 400 samples.

Sampling Procedure

Two-stage random sampling methods were used in this study. Initially, four residential halls (two male and two female) were randomly selected. In the second stage, 200 male and 200 female students were randomly chosen, with equal allocation from each selected hall. All relevant information was gathered from the respective residential hall offices. Before collecting data, we discussed with the selected students to explain the study's objectives and obtain their written consent. Additionally, permission was obtained from the respective hall authorities.

Data Collection Procedure

Data was collected using self-developed pre-tested structured questionnaire. Questionnaire was consisted of two parts: (i) general information of students, and (ii) the eighteen-item Bergen Facebook Addiction Scale (BFAS). First, we discussed the objectives of our study with all selected students, and taken their written consent before collecting their information. A partially structured questionnaire was used to collect data from the respondents. First of all a pilot survey have been done from mothers to observe whether there was any lacking or draw back in the

questionnaire. After proper modification, questionnaire was finalized and made ready for data collection.

Bergen Facebook Addiction Scale (BFAS)

The Bergen Facebook Addiction Scale has 18 items with five potential responses on a Likert scale: 1 for very seldom, 2 for rarely, 3 for sometimes, 4 for often, and 5 for very often. This scale assesses the salience, tolerance, mood modification, conflict, relapse, and withdrawal experiences related to Facebook usage for the past year (Andreassen, 2012). A prior study showed the Bangla-translated BFAS had a high level of validity and reliability, and it could be used to test Facebook addiction among Bangladeshi University students (Ahmed & Hossain, 2018).

Major variables and indicators

Outcome Variable

The total score of BFAS varied between 18 to 90. In this study, the outcome variable, BFAS was categorized into three groups: Not addicted ($\text{BFAS} \leq 36$), Mild addicted ($36 < \text{BFAS} \leq 54$) and Addicted ($\text{BFAS} > 54$).

Independent Variables

The following variables were considered as independent variables: Gender, age, place of residence, faculty, academic level, academic results, parent's education, parent's occupation, monthly family income (BDT), type of family, number of years of fakebook use, number of fakebook friends.

Statistical analysis

Descriptive statistics such as frequency distribution, percentage, cumulative percentage, and graphs were used in this progress report. Chi-square test was used to find the significant association between Facebook addiction and different socio-economic factors of University students. Finally, multinomial logistic regression analysis was used to find the significant factors of Facebook addiction. A value of $p < 0.05$ would be considered as statistically significant in the analysis. All data were analyzed using the Statistical Package for the Social Sciences software for Windows, version 22.0 (IBM, Armonk, NY, USA).

Results

This study mainly focused on finding the prevalence and associated factors of Facebook addiction among Rajshahi University students. A total number of 400 University students were selected for this research. The age range of the participants' was 19 to 24 years.

Table 1 presented the demographic distribution of the respondents based on gender, age and place of residence. The sample comprised an equal number of male and female respondents.

One-fourth (25.0%) of the respondents were aged 21 years or younger, while the majority (75.0%) were older than 21 years. Slightly more than half of the participants (51.0%) resided in urban areas, whereas 49.0% came from rural locations.

Table 1: Background characteristics of the participating respondents

Variables	Categories	Frequency	Percentage	Cumulative Percentage
Gender	Male	200	50.0	50.0
	Female	200	50.0	100.0
Age (Years)	≤ 21 Years	100	25.0	25.0
	> 21 Years	300	75.0	100.0
Place of residence	Urban	204	51.0	51.0
	Rural	196	49.0	100.0
Religion	Muslim	339	84.8	84.8
	Others	61	15.3	100

Table 2 showed the academic background of the students. Over half (53.0%) were from the Science faculty, and 64.5% were in their third year or above. In terms of GPA, 50.3% scored below 3.5, 33.0% between 3.5 and 3.75, and 16.7% above 3.75.

Table 2: Academic information of University students

Variables	Categories	Frequency	Percentage
Faculty	Science	212	53.0
	Others	188	47.0
Academic level	2 nd Year	142	35.5
	3 rd Year and above	258	64.5
Academic results (CGPA/GPA)	GPA < 3.5	201	50.3
	3.5 < GPA ≤ 3.75	132	33.0
	GPA > 3.75	67	16.7

Table 3 summarizes the family background of the respondents. Most fathers (69%) and mothers (61.2%) had at least secondary education. Over half of the fathers (52.4%) worked in farming or daily labor, while the majority of mothers (90.3%) were housewives. In terms of income, 43.8% of families earned between 15,001 and 30,000 BDT per month. Additionally, 74.8% of students came from nuclear families.

Table 3: Family background of respondents

Variables	Categories	Frequency	Percentage	Cumulative Percentage
Father's Education	Illiterate and Primary	124	31.0	31.0
	Secondary and above	276	69.0	100
Mother's	Illiterate and Primary	153	38.2	38.2

Education	Secondary and above	247	61.2	100
Father's Occupation	Service	83	20.8	20.8
	Business	107	26.8	47.6
	Others	210	52.4	100
Mother's Occupation	Housewife	361	90.3	90.3
	Others	39	9.8	100
Monthly Family Income	≤ 15000 BDT	145	36.2	36.2
	150001-30001 BDT	175	43.8	80.0
	>30000 BDT	80	20.0	100
Type of family	Nuclear	299	74.8	74.8
	Joint	101	25.2	100

Figure 2 illustrated the duration of Facebook membership among respondents. It showed that 46% of the participants had been using Facebook for five years or less, while the majority (54%) had been members for more than five years.

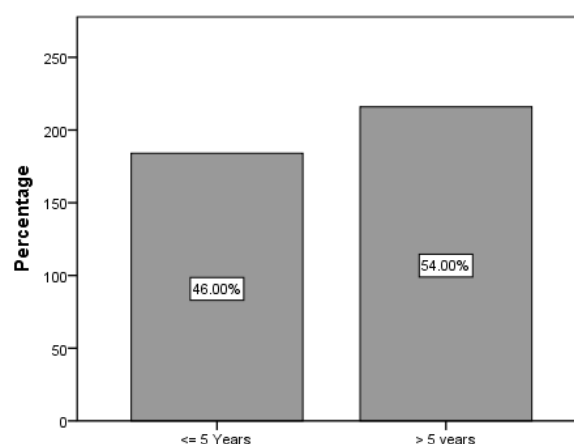


Figure 2: How many years have you been a member of Facebook?

Figure 3 depicted the total number of Facebook friends reported by the respondents. It showed that 43% of the participants had 500 or fewer friends, while the remaining 57% had more than 500 friends on their Facebook accounts.

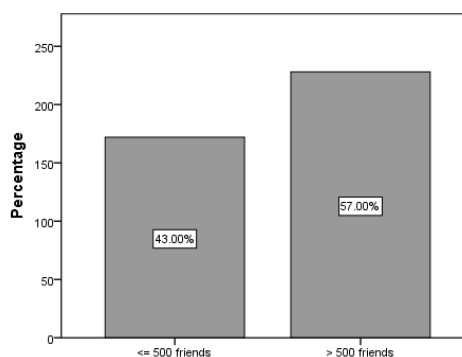


Figure 3: About how many total Facebook friends do you have?

Figure 4 illustrated the Facebook addiction levels among University students. It showed that 18.25% of the respondents were not addicted, while 53.50% were mildly addicted. The remaining 28.25% were classified as highly addicted to Facebook.

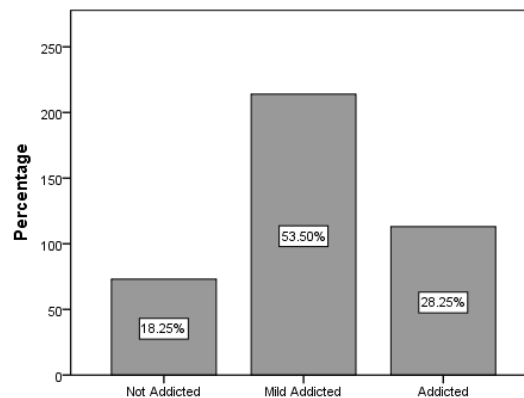
**Figure 4: Facebook addiction level among University students**

Table 4 showed the relationship between Facebook addiction levels and students' background characteristics using the Chi-square test. A significant link ($p < 0.01$) was found between gender and addiction level. More male students (31.5%) were addicted compared to females, while 26.5% of female students were not addicted. There was no significant association between age and addiction. Students aged 21 or younger had a slightly higher addiction rate (30.0%) than those over 21 (27.6%), but most in both groups were mildly addicted. Similarly, no significant link was found between residence and addiction. Addiction rates were close for urban (29.4%) and rural (27.0%) students, with similar levels of mild addiction in both groups.

Table 4: Association between Facebook addiction level and respondent background characteristics

Variables	Categories	Facebook Addiction Level			Chi-square Value
		Not Addicted, N (%)	Mild Addicted, N (%)	Addicted, N (%)	
Gender	Male	20 (10.0)	117 (58.5)	63 (31.5)	18.28**
	Female	53 (26.5)	97 (48.5)	50 (25.0)	
Age (Years)	≤ 21 Years	23 (23.0)	47 (47.0)	30 (30.0)	2.85
	> 21 Years	50 (16.7)	167 (55.7)	83 (27.6)	
Place of residence	Urban	34 (16.7)	110 (53.9)	60 (29.4)	0.78
	Rural	39 (19.9)	104 (53.1)	53 (27.0)	

** at 1% level of significance, * at 5% level of significance

Table 5 showed the association between Facebook addiction and students' academic information. Addiction levels were slightly higher among Science students (29.2%) than those from other faculties (27.1%), but the difference was not statistically significant. Second-year students had a higher rate of non-addiction (23.2%) compared to senior students (15.5%), though addiction rates were similar. This association was also not significant. However, a significant relationship ($p < 0.01$) was found between GPA and addiction: students with lower GPAs had higher addiction rates, while those with GPAs above 3.75 showed the highest non-addiction rate (32.8%) and lowest addiction rate (25.4%).

Table 5: Association between Facebook addiction level and respondents' academic information

Variables	Categories	Facebook Addiction Level			Chi-square Value
		Not Addicted, N (%)	Mild Addicted, N (%)	Addicted, N (%)	
Faculty	Science	41 (19.3)	109 (51.4)	62 (29.2)	0.82
	Others	32 (17.0)	105 (55.9)	51 (27.1)	
Academic level	2 nd Year	33 (23.2)	67 (47.2)	42 (29.6)	4.78
	3 rd Year and above	40 (15.5)	147 (57.0)	71 (27.5)	
Academic results	GPA < 3.5	29 (14.4)	111 (55.2)	61 (30.4)	12.35**
	3.5 < GPA ≤ 3.75	22 (16.7)	75 (56.8)	35 (26.5)	
	GPA > 3.75	22 (32.8)	28 (41.8)	17 (25.4)	

** at 1% level of significance, * at 5% level of significance

Table 6 summarizes the link between Facebook addiction and family background. No significant association was found with father's education or occupation. However, mother's education showed a significant association ($p < 0.01$), with higher addiction and non-addiction rates among students whose mothers had secondary education or above. Monthly income showed varied addiction levels, but the association was not significant. Addiction was highest (33.8%) in the lowest income group. Lastly, family type showed a significant association ($p < 0.05$): students from nuclear families had higher non-addiction rates (21.1%), while mild addiction was more common in joint families (65.3%).

Table 6: Association between respondents' Facebook addiction level and family background

Variables	Categories	Facebook Addiction Level			Chi-square Value
		Not Addicted, N (%)	Mild Addicted, N (%)	Addicted, N (%)	
Father's Education	Illiterate and Primary	18 (14.5)	69 (55.6)	37 (29.9)	1.69
	Secondary and above	55 (19.9)	145 (52.5)	76 (27.6)	
Mother's	Illiterate and	19 (12.4)	97 (63.4)	37 (24.2)	10.61**

Education	Primary				
	Secondary and above	54 (21.9)	117 (47.4)	76 (30.8)	
Father's Occupation	Service	21 (25.3)	42 (50.6)	20 (24.1)	3.92
	Business	19 (17.8)	58 (54.2)	30 (28.0)	
	Others	33 (15.7)	114 (54.3)	63 (30.0)	
Mother's Occupation	Housewife	66 (18.3)	195 (54.0)	100 (27.7)	0.58
	Others	7 (17.9)	19 (48.7)	13 (33.3)	
Monthly Family Income	≤ 15000 BDT	22 (15.2)	74 (51.0)	49 (33.8)	7.09
	150001-30001	36 (20.6)	101 (57.7)	38 (21.7)	
	> 30000 BDT	15 (18.8)	39 (48.8)	26 (32.5)	
Type of family	Nuclear	63 (21.1)	148 (49.5)	88 (29.4)	9.29*
	Joint	10 (9.9)	66 (65.3)	25 (24.8)	

** at 1% level of significance, * at 5% level of significance

Table 7 showed the association between Facebook addiction and Facebook-related behavior. Students using Facebook for over five years had a higher addiction rate (32.4%) compared to those with shorter use (23.3%), while non-addiction was more common among newer users (23.4%). This association was significant ($p < 0.05$). Students with over 500 Facebook friends had higher addiction (30.7%) and lower non-addiction (8.8%) rates than those with 500 or fewer friends. This relationship was statistically significant ($p < 0.01$), showing that more Facebook friends are linked to higher addiction levels.

Table 7: Association between respondents' Facebook addiction level and Facebook related information

Variables	Categories	Facebook Addiction Level			Chi-square Value
		Not Addicted, N (%)	Mild Addicted, N (%)	Addicted, N (%)	
How many years have you been a member of Facebook?	≤ 5 Years	43 (23.4)	98 (53.3)	43 (23.3)	7.70*
	> 5 Years	30 (13.9)	116 (53.7)	70 (32.4)	
About how many total Facebook friends do you have?	≤ 500 Friends	53 (30.8)	76 (44.2)	43 (25.0)	32.12**
	> 500 Friends	20 (8.8)	138 (60.5)	70 (30.7)	

** at 1% level of significance, * at 5% level of significance

Table 8 presented the results of a multinomial logistic regression analysis examining factors associated with Facebook addiction. For the moderately addicted group, academic performance showed a significant association: students with a GPA < 3.5 had 2.83 times higher odds of being moderately addicted compared to those with a GPA > 3.75 ($p < 0.01$), and those with a GPA between 3.5 and 3.75 had 2.77 times higher odds ($p < 0.05$). Students from nuclear families had significantly lower odds of moderate addiction compared to those from joint families (OR = 0.36, $p < 0.05$). Duration of Facebook use also showed a significant effect: students who had used Facebook for five years or less had lower odds of being moderately addicted (OR = 0.98, $p < 0.05$). Moreover, students with 500 or fewer Facebook friends were significantly less likely to be moderately addicted (OR = 0.25, $p < 0.01$).

For the addicted group, students with GPA < 3.5 had significantly higher odds of being addicted (OR = 2.40, $p < 0.05$) compared to those with GPA > 3.75. The number of Facebook friends remained a strong predictor: students with 500 or fewer friends had significantly lower odds of being addicted (OR = 0.33, $p < 0.01$) compared to those with more than 500 friends.

Table 8: Effect of different factors on respondents' Facebook addiction

Facebook addiction	Variables	B	S.E.	OR	95% C.I. for OR	
					Lower	Upper
Moderately Addicted	Gender					
	Male vs Female	0.02	0.39	1.02	0.47	2.18
	Results					
	GPA < 3.5 vs GPA > 3.75	1.04	0.39	2.83**	1.33	6.01
	3.5 < GPA ≤ 3.75 vs GPA > 3.75	1.02	0.41	2.77*	1.25	6.15
	Mother education					
	Illiterate and Primary vs Secondary and above	0.49	0.33	1.63	0.85	3.12
	Type of family					
	Nuclear vs Joint	-1.02	0.40	0.36*	0.17	0.79
	How many years have you been a member of Facebook?					
	≤ 5 Years vs > 5 Years	-0.26	0.32	0.98*	0.52	1.84
	About how many total Facebook friends do you have?					
	≤ 500 Friends vs > 500 Friends	-1.40	0.37	0.25**	0.12	0.51
Addicted	Gender					
	Male vs Female	0.31	0.42	1.36	0.60	3.08
	Results					
	GPA < 3.5 vs GPA > 3.75	0.88	0.42	2.40*	1.06	5.45
	3.5 < GPA ≤ 3.75 vs GPA > 3.75	0.63	0.45	1.87	0.78	4.48
	Mother education					
	Illiterate and Primary vs Secondary and above	-0.05	0.36	0.94	0.46	1.93

	Type of family					
	Nuclear vs Joint	-0.58	0.43	0.56	0.24	1.32
	How many years have you been a member of Facebook?					
	≤ 5 Years vs > 5 Years	-0.33	0.35	0.72	0.36	1.42
	About how many total Facebook friends do you have?					
	≤ 500 Friends vs > 500 Friends	-1.11	0.40	0.33**	0.15	0.72

Reference Category: Not Addicted; ** at 1% level of significance, * at 5% level of significance

Discussion

The study focused on Facebook addiction among Rajshahi University students aged between 19 and 24 years, with an equal distribution of males and females. This study showed that 28.25% of the respondents were highly addicted. Prevalence of Facebook addiction among medical student in Egypt was 16.6% (Mohamed et al. 2025). Prevalence of Facebook addiction among medical student in Bangladesh was 29.4% (Karim et al. 2023). Almost identical findings were observed in studies conducted in India (Shettar et al. 2017) and Nepal (Atreya et al., 2020). A statistically significant association between gender and Facebook addiction level ($p < 0.01$). Male students were more likely to experience higher levels of Facebook addiction than female students. This aligns with previous literature indicating that males often engage more heavily in online activities, including social networking, potentially due to differing socialization patterns, technology engagement preferences, or coping mechanisms for stress and boredom (Morahan-Martin & Schumacher, 2000; Kuss et al., 2013). In terms of academic performance, both the Chi-square test and multinomial logistic regression analysis revealed a strong and statistically significant association between academic results and Facebook addiction ($p < 0.01$). Specifically, students with lower GPAs were more likely to fall into the moderately addicted and addicted groups. Several studies have reported that Facebook addiction is associated with poorer academic performance (Mohamed et al., 2025; Dule et al., 2023; Karim et al., 2023). Excessive Facebook use may reduce students' academic focus, study habits, and time management (Junco, 2012). It may also function as a coping mechanism for lower-performing students who turn to social media to escape academic stress or disappointment (Rosen et al., 2013). One key explanation is time displacement, where time that could be devoted to studying is instead spent on social media (Dule, 2023). Students with addictive Facebook use often spend several hours daily on the platform, reducing the time and concentration available for academic tasks (Al-Menayes, 2014). Furthermore, Facebook addiction has been linked to psychological problems such as anxiety, depression, and low self-esteem, which may increase academic stress and negatively affect GPA (Kirschner, 2010; Thomas, 2019). Excessive use may also reduce face-to-face social interactions and contribute to sleep disturbances and social isolation, further hindering academic performance (Al-Menayes, 2014). In the context of Bangladeshi University students, where academic achievement is highly valued, these behavioral and psychological effects may significantly influence students' academic outcomes. Mother's education also

showed a statistically significant relationship with Facebook addiction ($p < 0.01$). Students whose mothers had only primary or no education were more likely to be mildly addicted. One plausible explanation is that parents with lower education levels may be less aware of the psychological and academic risks associated with excessive social media use, thus exerting less monitoring or guidance over their children's online behavior (Huang, 2015). The type of family structure was another significant factor ($p < 0.05$), with students from joint families more likely to be moderately addicted compared to those from nuclear families. In joint families, where privacy and personal space might be limited, students may turn to Facebook for social interaction or as a form of personal space. On the other hand, students from nuclear families might experience more direct parental supervision or a structured environment that encourages discipline and limits digital distractions (Enez Darcin et al., 2016).

A significant association between longer duration of Facebook use and addiction levels ($p < 0.05$) indicated that the longer a student had been a Facebook user, the more likely they were to fall into an addicted category. This is likely due to the cumulative effects of habitual use and the reinforcing nature of social media engagement over time, which gradually develops into compulsive behavior (Ryan et al., 2014). Furthermore, the number of Facebook friends was found to be strongly associated with Facebook addiction levels ($p < 0.01$). Students with more than 500 friends were significantly more likely to be addicted. This suggests that a larger online network may demand more frequent interaction, attention, and engagement—key elements that fuel addictive behaviors. Maintaining such a wide social presence may also increase social comparison and validation-seeking tendencies, which are known predictors of social media addiction (Nadkarni & Hofmann, 2012; Andreassen, 2015).

Conclusions

In conclusion, this study highlights that Facebook addiction among University students is influenced by a range of academic, family, and behavioral factors. Key contributors include gender, GPA, parental (especially maternal) education, family structure, years of Facebook use, and number of online friends. These findings suggest that Facebook addiction is a complex issue rooted in students' broader social and psychological environments. Therefore, effective prevention and intervention efforts should take a holistic approach, combining digital literacy, academic support, and family involvement to promote healthier social media habits.

Recommendations

Based on these findings, several targeted recommendations can be made to mitigate Facebook addiction among university students. Firstly, universities should implement structured digital literacy programs and awareness campaigns that educate students on the responsible use of social

media and the potential consequences of excessive engagement. Counseling services should also be made available to support students struggling with poor academic performance or emotional stress, particularly those who may be using Facebook as a coping mechanism. Parents, especially mothers with lower levels of education, should be engaged through community outreach to enhance their understanding of social media's impact and encourage more active supervision. Institutions should also consider promoting family-level interventions and communication strategies that can help balance the challenges associated with joint family living. Finally, students should be encouraged to develop healthy online habits, such as setting time limits, reducing friend list sizes to meaningful contacts, and engaging in offline activities that fulfill their social and emotional needs. These interventions, when implemented collectively, can help create a supportive environment that reduces the risk of Facebook addiction and promotes overall well-being.

Acknowledgments

The authors thank the Faculty of Science, University of Rajshahi, Rajshahi-6205, Bangladesh, for financial support. They also appreciate the cooperation of the university authorities and the residential hall authorities for allowing data collection from students and sharing their basic information. ChatGPT 4.0 was used to enhance the readability and language of the manuscript.

References

- Ahmed O. Hossain MA. Validation Study of the Bergen Facebook Addiction Scale On a Sample of Bangladeshi People. *Journal of Addiction Research & Therapy*. October 2018; 9(6).
- Al-Menayes, J. J. (2015). The relationship between mobile social media use and academic performance in university students. *New Media & Society*, 17(4), 630–646.
- Andreassen CS. Development of a Facebook addiction scale. *Psychological Reports*. 2012; 110 (2): 501–517. *Psychological Reports* 2012.
- Andreassen, C. S. (2015). Online social network site addiction: A comprehensive review. *Current Addiction Reports*, 2(2), 175–184. Enez Darcin, A., Kose, S., Noyan, C. O., Nurmedov, S., Yilmaz, O., & Dilbaz, N. (2016). Smartphone addiction and its relationship with social anxiety and loneliness. *Behavioural Sciences*, 6(4), 56.
- Huang, C. (2015). Social network site use and academic achievement: A meta-analysis. *Computers & Education*, 92, 102–116.
- Junco, R. (2012). Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance. *Computers in Human Behavior*, 28(1), 187–198.

- Koc, M., & Gulyagci, S. (2013). Facebook addiction among Turkish college students: The role of psychological health, demographic, and usage characteristics. *Cyberpsychology, Behavior, and Social Networking*, 16(4), 279–284.
- Kirschner, P. A., & Karpinski, A. C. (2010). Facebook and academic performance. *Computers in Human Behavior*, 26(6), 1237–1245.
- Kuss, D. J., & Griffiths, M. D. (2011). Online social networking and addiction—a review of the psychological literature. *International Journal of Environmental Research and Public Health*, 8(9), 3528–3552.
- Morahan-Martin, J., & Schumacher, P. (2000). Incidence and correlates of pathological Internet use among college students. *Computers in Human Behavior*, 16(1), 13–29.
- Nadkarni, A., & Hofmann, S. G. (2012). Why do people use Facebook? *Personality and Individual Differences*, 52(3), 243–249.
- Rosen, L. D., Carrier, M. A., & Cheever, N. A. (2013). Facebook and texting made me do it: Media-induced task-switching while studying. *Computers in Human Behavior*, 29(3), 948–958.
- Ryan, T., Chester, A., Reece, J., & Xenos, S. (2014). The uses and abuses of Facebook: A review of Facebook addiction. *Journal of Behavioral Addictions*, 3(3), 133–148.
- Mohamed, E.F., Mohamed, A.E., Youssef, A.M., Sehlo, M.G., Soliman, E.S.A. and Ibrahim, A.S., 2025. Facebook addiction among medical students: prevalence and consequences. *Middle East Current Psychiatry*, 32(1), p.7.
- Dule, A., Abdu, Z., Hajure, M., Mohammedhussein, M., Girma, M., Gezimu, W. and Duguma, A., 2023. Facebook addiction and affected academic performance among Ethiopian university students: A cross-sectional study. *PLoS One*, 18(2), p.e0280306.
- ShettarM,KarkalR,KakunjeA,MendonsaRD,ChandranVM.Facebookaddictionandloneliness in the post-graduate students of a university in southern India. *Int J Soc Psychiatry*. 2017 Jun; 63(4):325329. <https://doi.org/10.1177/0020764017705895> PMID: 28504040. 48.
- AtreyaA, NepalS and ThapaP.Cross-sectionalstudyofFacebookaddictionin a sampleof Nepalese population [version 2; peer review: 2 approved]. *F1000Research* 2020, 9:1237 <https://doi.org/10.12688/f1000research.26923.2>.
- Karim MR, Haque M.J, Akhter S, Ahmed HU (2023) Facebook addiction and its related factors among medical students; a cross- sectional study in Bangladesh. *PLOS Glob Public Health* 3(2): e0001597.
- Aparicio-Martínez, P., Perea-Moreno, A. J., Martínez-Jiménez, M. P., Redel-Macías, M. D., Pagliari, C., & Vaquero-Abellán, M. (2020). Social media, thin-ideal, body dissatisfaction and disordered eating attitudes: An exploratory analysis. *International Journal of Environmental Research and Public Health*, 17(17), 6140.

- Kuss, D. J., & Griffiths, M. D. (2017). Social networking sites and addiction: Ten lessons learned. *International Journal of Environmental Research and Public Health*, 14(3), 311.
- Rahman, M. M., & Yeasmin, S. (2022). The impact of social media addiction on academic performance among university students in Bangladesh. *Asian Journal of Education and Social Studies*, 34(2), 40–51.
- Rouis, S., Limayem, M., & Salehi-Sangari, E. (2011). Impact of Facebook usage on students' academic achievement: Role of self-regulation and trust. *Electronic Journal of Research in Educational Psychology*, 9(3), 961–994.
- Satici, S. A., & Uysal, R. (2015). Well-being and problematic Facebook use. *Computers in Human Behavior*, 49, 185–190.
- Thomas, D. (2019). Facebook Addiction and Academic Anxiety among University Students. 22(2), 68–83.