

Factors Influencing Academic Performance among Pharm D Students: A Cross-Sectional Observational Study

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Abstract

Academic performance in Pharm D students is influenced by multiple demographic, behavioral, and health-related factors, which are important to identify for improving student outcomes. This study aimed to evaluate demographic characteristics, support systems, behavioral habits, and illnesses associated with academic performance among Pharm D students. A cross-sectional observational study was conducted among 210 Pharm D students from June 2025 to December 2025. Data on age, gender, family history, illness, web browsing habits, support systems, and prior academic performance (GPA/percentage) were collected through a structured form and analyzed using Microsoft Excel 2013. The majority of students were aged 21–23 years (53.3%) and female (58.1%). Family support was the most common primary support system (45.7%). Excessive web browsing (34.3%) and poor time management (27.6%) were the leading factors contributing to suppressed academic performance. Psychological illnesses were present in 21.9% of students. Most students had moderate previous academic performance (46.7%). The findings indicate that age, support systems, behavioral habits, psychological health, and prior academic performance significantly influence academic outcomes. Interventions such as mental health counseling, mentorship, and responsible digital habits may improve academic performance among Pharm D students.

Keywords: Academic performance, Pharm D students, Support system, Time management, Psychological health.

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INTRODUCTION

Academic performance is a key indicator of learning outcomes and professional readiness in pharmacy education. Multiple factors, such as age, gender, mental health, study habits, and available support systems, can significantly influence how students perform academically [1]. Family and faculty support have been shown to positively affect motivation and engagement, contributing to better academic outcomes [2,3]. Conversely, behavioral factors such as excessive use of social media or poor time management can negatively impact performance [4,5]. Psychological conditions, including stress, anxiety, and depression, have also been associated with reduced academic achievement among pharmacy students [6]. Despite its importance, limited research has examined these factors in Pharm D students, particularly in developing countries. This study aimed to evaluate the demographic, behavioral, and health-related factors associated with academic performance among Pharm D students.

METHODOLOGY

Study Design and Duration

A cross-sectional observational study was carried out over six months, from January 2025 to Jul 2025, to assess factors affecting academic performance among Pharm D students.

Study Population

The study included 210 Pharm D students enrolled in the college. Participation was voluntary, and informed consent was obtained from all students prior to data collection.

Inclusion Criteria

- Students experiencing academic performance challenges
- Students willing to participate in the study

Exclusion Criteria

- Students who did not provide consent

Data Collection

Data were collected through direct interaction and a modified structured form, including the following variables:

- I. Age and gender

2. Family history of illness
3. Current illnesses
4. Web browsing habits
5. Support systems (family, peers, faculty)
6. Previous academic performance (GPA or percentage)

Data Analysis

All collected data were entered and analyzed using Microsoft Excel 2013. Descriptive statistics, including frequencies and percentages, were calculated. Tables were used to summarize key findings.

RESULTS

Demographic Characteristics

Among the 210 students, the majority (53.3%) were aged 21–23 years, while 30.5% were 18–20 years, and 16.2% were 24–26 years. Females represented 58.1% of participants. Family history of illness was present in 26.7% of students (Table 01). This distribution indicates that mid-aged students, particularly females, formed the largest portion of the study population [1].

Table 01: Demographic Characteristics of Students (n = 210)

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	18–20	64	30.5
	21–23	112	53.3
	24–26	34	16.2
Gender	Male	88	41.9
	Female	122	58.1
Family History of Illness	Present	56	26.7
	Absent	154	73.3

Primary Support System

Family was the most common source of support (45.7%), followed by friends/peers (25.7%) and faculty/mentors (15.2%). About 13.4% of students reported having no support (Table 02). This indicates that a significant proportion of students rely on family for academic and emotional assistance [2].

Table 02: Primary Support System (n = 210)

Type of Support	Frequency (n)	Percentage (%)
Family	96	45.7
Friends/Peers	54	25.7
Faculty/Mentors	32	15.2
No Support	28	13.4

Reasons for Suppressed Academic Performance

The most common reasons reported were excessive web browsing (34.3%) and poor time management (27.6%), followed by lack of motivation (20%) and academic stress/anxiety (18.1%) (Table 3). This highlights behavioral and psychological challenges that may interfere with students' learning [3].

Table 03: Reasons for Suppressed Academic Performance (n = 210)

Reason	Frequency (n)	Percentage (%)
Excessive web browsing/social media	72	34.3
Poor time management	58	27.6
Lack of motivation	42	20.0
Academic stress/anxiety	38	18.1

Illness Affecting Academic Performance

While 59% of students reported no illness, 21.9% reported psychological illness, 13.3% had chronic medical conditions and 5.8% had acute illnesses (Table 04). Psychological illnesses appeared to be the most significant health-related factor negatively affecting academic outcomes [4].

Table 04: Illnesses Affecting Academic Performance (n = 210)

Type of Illness	Frequency (n)	Percentage (%)
No illness	124	59.0
Psychological illness	46	21.9
Chronic medical illness	28	13.3
Acute illness	12	5.8

Previous Academic Performance

Most students had moderate previous academic performance (46.7%), 29.5% had high performance and 23.8% had low performance (Table 5). This suggests that prior academic history may influence current outcomes [5].

Table 05: Previous Academic Performance (n = 210)

Performance Level	Frequency (n)	Percentage (%)
High ($\geq 75\%$ / GPA ≥ 8)	62	29.5
Moderate (60–74% / GPA 6–7.9)	98	46.7
Low ($< 60\%$ / GPA < 6)	50	23.8

DISCUSSION

This study identified multiple factors influencing academic performance in Pharm D students. The age distribution indicates that students in the 21–23 year range were most affected, which aligns with prior studies suggesting mid-professional years are particularly stressful [1].

Family support emerged as the most significant source of assistance, consistent with evidence that familial and faculty backing improves motivation and academic outcomes [2,3]. Students without adequate support

exhibited lower academic performance, emphasizing the role of a structured support network [2].

Behavioral issues, such as excessive web browsing and poor time management, were major contributors to academic suppression, which agrees with prior findings linking digital distractions and inefficient time use to lower grades [4, 5].

Psychological illness was also associated with reduced academic performance. This is supported by previous studies highlighting the impact of stress, anxiety, and depression on learning and exam performance in pharmacy students [6].

Finally, previous academic performance correlated with current outcomes, suggesting that early academic achievements may predict ongoing success [5]. The results underscore the need for institutional interventions that include mental health support, mentorship programs, and guidance on time management and responsible digital usage.

CONCLUSION

Academic performance among Pharm D students is influenced by age, primary support systems, behavioral habits, psychological health, and prior academic performance. Institutions should implement interventions such as academic counseling, mental health programs, and mentoring to improve student outcomes.

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