

Research Paper

Perceived Stress and Its Determinants Among a Private Pharmacy and Engineering College Students: A Comparative Study

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ABSTRACT

Background: Stress is one of the most common and significant cognitive and physical responses to challenging situations. The primary aim of this study was to assess the prevalence of perceived stress among students and to identify its key contributing factors. Specifically, the research focused on engineering and pharmacy students at a private pharmacy college in Telangana, India. **Methodology:** A cross-sectional study was conducted using pre-validated questionnaires (PSS-10, PHQ-4, etc.) to analyze stress determinants and perceived strain factors. Data were collected through convenient sampling in classroom settings and analysed using appropriate statistical methods. **Results:** A survey of 606 students (76% engineering, 82% aged 18–20) found engineering students had higher stress scores than pharmacy (PSS-10: 22 vs. 20; PHQ-4: 6 vs. 5; ASF-35: 79 vs. 71). Stress was associated with gender, year, family history, and native place ($p < .05$). Among pharmacy third-years, 28% reported moderate and 24% severe stress ($p < .001$). Overall, moderate stress was higher in engineering (53%) than pharmacy (41%), with mean scores 102.35 vs. 92.15. **Conclusion:** Engineering students face higher mild stress levels than pharmacy students, mainly due to academics, relationships, finances, and transport. Key stressors include physical activity, conflicts, family, and institutional pressures. Targeted interventions are needed to support student well-being and performance.

Keywords: *Perceived stress, Determinants, Engineering & Pharmacy Students, PSS, Associated Factors*

Selye (1936, 1956, 1974) defined stress as "the body's nonspecific response to any demand" and proposed the General Adaptation Syndrome (alarm, resistance, fatigue). Student stress arises from academic, personal, financial, and social pressures (Cherian

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& Charian, 1998). Globally, 31% of adults report stress as a major concern, with 62.3% of Asian pharmacy students and 70–73% of Indian pharmacy and engineering students affected, driven by heavy workloads, poor time management, and limited support.

REVIEW OF LITERATURE

Vidya D. C. et al. (2017) studied 560 engineering and medical students at Karpaga Vinayaga Educational Institute using the “Managing Oneself” survey and SPSS v18. They found 24.2% mild, 69.6% moderate, and 6.2% severe stress. Stress in medical students was linked to personal issues, sleep disturbance, academic difficulty, time management, and homesickness, while in engineering students it was related to personal problems, sleep disturbance, and time management, highlighting academic, personal, and lifestyle challenges in both groups.

METHODOLOGY

Hypotheses

- **H1:** There is no perceived stress among Pharmacy and Engineering students.
- **H2:** There is perceived stress among pharmacy and Engineering students.

Objectives

General Objectives: The main objective of the study was to ascertain the frequency of experienced stress among engineering and pharmacy students as well as the factors that influence it across Telangana state, and India's educational institutions.

Specific Objectives

- To evaluate the level of stress experienced by the students of Pharmacy and Engineering students and its extent
- What are the determinants of stress
- To evaluate the association between Stress Categories and Socio-demographic Variables
- To compare the factors triggering stress in both pharmacy and Engineering students

Sample

The study included B. Pharm (Year 1–4) and Engineering (Year 1–4: CSE, MECH, CIVIL, EEE, ECE, IT) students from Geethanjali College who provided informed consent, while postgraduates, non-GCPK students, and those unwilling to consent were excluded. Recruitment was done through convenient sampling, with the sample size estimated using a 50% response distribution, 5% margin of error, and 95% confidence level. In total, 606 valid questionnaires were collected from 210 pharmacy and 310 engineering students.

Research design

This is a cross-sectional study to determine perceived stress and its determinants among Pharmacy and Engineering college students – A comparative study in educational institutions.

Statistical analysis

Data were entered in Excel (v2412) and analyzed using SPSS v27. Continuous variables were shown as mean \pm SD, while categorical variables were expressed as frequencies and percentages. Chi-square tested categorical data, with $p < 0.05$ considered significant.

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Instruments

- **SOCIO-DEMOGRAPHIC CHARACTERISTICS:** Participants provided demographic, lifestyle, and mental health-related information relevant to the study.
- **PSS-10:** Modified 10-item scale measuring stress over the past month; scores 0–13 = low, 14–26 = moderate, 27–40 = high; 4 items reverse-coded before analysis.
- **PHQ-4:** Brief tool for depression and anxiety (PHQ-2 + GAD-2); scored 0–3 on Likert scale; PHQ-2 > 3 = depression, GAD-2 ≥ 3 = anxiety; avg ≥ 1.5 = clinical benchmark.
- **STRESS DETERMINANTS:** Stress factors classified into physical activity, relationships, family/friends, institutional/academic workload, transport/environment, and financial resources.

Data Collection

Pre-validated questionnaires were administered in classrooms, where the study objectives were explained and signed informed consent was obtained before distributing and collecting the survey forms.

RESULTS

Raw Score and Internal Consistency (N=606)

SOCIODEMOGRAPHIC CHARACTERISTICS OF STUDY PARTICIPANTS

Among 314 engineering and 292 pharmacy students, most were under 20, single, Hindu, and in their first or second year; males dominated engineering, while females dominated pharmacy. Smoking and alcohol use were rare, but stress was common, with 17% of pharmacy and 24% of engineering students reporting a family history.

RESPONSE TOWARDS THE PSS – 10

Engineering students had higher PSS-10 median scores (22 vs. 20) and more often felt out of control or anxious, while pharmacy students more frequently reported confidence in handling problems and annoyances. Most findings were statistically significant ($p \leq .001$).

RESPONSE TOWARDS THE PATIENT HEALTH QUESTIONNAIRE (PHQ-4)

PHQ-4 results showed engineering students had higher overall anxiety, while pharmacy students reported symptoms more frequently, with significant differences in daily and frequent feelings of fear, anxiety, or loss of interest ($p \leq .003$).

RESPONSE TOWARDS ASSOCIATED STRESS FACTORS

The 35-item stress survey showed engineering students had higher stress (79 vs. 71) from workload, infrastructure, and transport, while pharmacy students faced financial (24%), family (45%), and interpersonal (39%) pressures. Both groups reported time management, economic, and health issues, with engineering stressed by technology/facilities and pharmacy by peers, roommates, and resources.

Comparison of Stress Factor Categories among study participants

Engineering students showed higher stress in academics, relationships, commuting, exercise, and social interactions, while pharmacy students reported more stress from organizations and equipment; financial stress was similar in both.

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The cumulative perceived stress results of the analysis

Engineering students showed higher stress (PSS-10 mean 20.5, median 22; 43% severe) than pharmacy students (mean 18.7, median 20; 38% severe), with most scales significant, highlighting the need for targeted mental health interventions.

The aggregate perceived stress levels of the participants

Engineering students reported 38% low, 53% moderate, and 9% severe stress (mean 102.35 ± 34.65), while pharmacy students had 54% low, 41% moderate, and 5% severe stress (mean 92.15 ± 33.74), both significant (p < .001).

Table 4.1: Raw Scores and Internal Consistency(N=606)

Engineering Variables	Items	Engineering					Pharmacy				
		M	IQR	Min	Max	α	M	IQR	Min	Max	α
PSS -10	10	22	9	0	40	.80	20	8.75	0	40	.80
PHQ-2	2	3	3	0	6	.73	2	2	0	6	.70
GAD-2	2	3	2	0	6	.64	2	3	0	6	.49*
PHQ-4	4	6	5	0	12	.81	5	5	0	12	.76
Stress Determinants (Contributing Factors)											
Physical activity- related stress	5	11	6	0	20	.79	11	5	0	20	.75
Interpersonal/relationships-related stress	5	10	8	0	20	.82	9	7	0	20	.76
Family& friendships-related stress	5	12	7	0	20	.83	10	8	0	20	.79
Institution& infrastructure-related stress	5	11.5	7	0	20	.83	10	6	0	20	.81
Academic workload & facilities-related stress	5	12	6	0	20	.81	11	6	0	20	.81
Environmental and transport-related stress	5	11	6	0	20	.85	10	7	0	20	.82
Financial resources-related stress	5	12	8	0	20	.88	11	9	0	20	.89
Overall Stress Factors Determinants	35	79	41	0	140	.95	71	40	0	132	.95

Table 4.2: Socio Demographic Characteristics

Variables	Engineering (N=314) N (%)	Pharmacy (N=292) N (%)
Age in years		
<20 years	237 (76)	238 (82)
21-22 years	76 (24)	51 (17)
>22years	1 (0)	3 (1)
Gender		
Male	193 (61)	81 (28)
Female	121 (39)	211 (72)
Religion		
Hindu	288 (92)	261 (89)
Muslim	15 (5)	18 (6)
Christian	10 (3)	1 (5)
Others	1 (0)	0 (0)
Year of study		
1 st year	82 (26)	79 (27)
2 nd year	114 (36)	83 (28)

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Variables	Engineering (N=314) N (%)	Pharmacy (N=292) N (%)
3 rd year	43 (14)	69 (24)
4 th year	75 (24)	61 (21)
Marital status		
Single	290 (92)	266 (91)
Married	5 (2)	8 (3)
In relationship	19 (6)	18 (6)
Smoking history		
No	295 (94)	283 (97)
Yes	19 (6)	9 (3)
Alcohol history		
No	287 (91)	279 (95)
Yes	27 (9)	13 (5)
Family history for Stress/ depression		
No	240 (76)	242 (83)
Yes	74 (24)	50 (17)
If yes, S/D		
Stress	63(20)	35 (82)
Depression	8 (3)	17 (12)
No S/D	243 (77)	240 (6)
If Yes, who has the history		
Mother	9 (3)	20 (7)
Siblings	11 (3)	5 (2)
Aunts	5 (2)	1 (0)
Relative	46 (15)	25 (9)
No F/H	243 (77)	241 (82)
Native location		
City	161 (51)	154 (53)
Town	101 (32)	65 (22)
Rural	52 (17)	73(25)

Table 4.3: Response towards PSS-10 Stress Scale (N=606)

No.	Variables	Engineering					*P value	Pharmacy					*P value
		NE	AN	ST	FO	VO		NE	AN	ST	FO	VO	
1.	In the last month, how often have you been upset because of something that happened unexpectedly?	41 (13)	47 (15)	119 (38)	66 (21)	41 (13)	<.001	60 (21)	45 (15)	114 (39)	33 (11)	40 (14)	<.001
2.	In the last month, how often have you felt that you were unable to control the important things in your life?	37 (12)	50 (16)	130 (41)	61 (19)	36 (12)	<.001	69 (24)	63 (21)	81 (28)	43 (15)	36 (12)	<.001
3.	In the last month, how often have you felt nervous and “stressed”?	60 (10)	46 (15)	111 (35)	80 (25)	47 (15)	<.001	42 (14)	45 (15)	107 (37)	56 (19)	42 (15)	<.001
4.*	In the last month, how often have you felt confident about your ability to handle your personal problems?	29 (9)	35 (11)	100 (32)	96 (31)	54 (17)	<.001	25 (9)	53 (18)	82 (28)	86 (29)	46 (16)	<.001
5.*	In the last month, how often have you felt that things were going your way?	35 (11)	62 (20)	108 (34)	67 (21)	42 (14)	<.001	56 (19)	63 (21)	93 (32)	55 (19)	25 (9)	<.001

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6.	In the last month, how often have you found that you could not cope with all the things that you had to do?	32 (10)	56 (18)	112 (36)	82 (26)	32 (10)	<.001	54 (18)	78 (27)	87 (30)	51 (17)	22 (8)	<.001
7.*	In the last month, how often have you been able to control irritations in your life?	31 (10)	47 (15)	105 (33)	89 (28)	42 (14)	<.001	50 (17)	43 (15)	105 (36)	60 (20)	34 (12)	<.001
8.*	In the last month, how often have you felt that you were on top of things?	42 (13)	54 (17)	118 (38)	63 (20)	37 (12)	<.001	59 (20)	65 (22)	91 (31)	50 (17)	27 (10)	<.001
9.	In the last month, how often have you been angered because of things that were outside of your control?	36 (12)	32 (10)	110 (35)	76 (24)	60 (19)	<.001	45 (15)	41 (14)	101 (35)	53 (18)	52 (18)	<.001
10.	In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?	32 (10)	53 (17)	96 (31)	80 (25)	53 (17)	<.001	59 (20)	63 (22)	85 (29)	60 (20)	25 (9)	<.001
	Average Response in N (%)	37 (11)	48 (15)	111 (36)	76 (24)	44 (14)		51 (18)	56 (19)	95 (33)	55 (19)	35 (11)	
	M (IQR)	22 (9); 0-40						20 (8.7); 0-40					

*(X²)=Chi square test; p <.05 is significant; **Abbreviation:** NE:Never, AN: Almost Never, ST: sometimes, FO: fairly often, VO: very often

Table 4.4: Response towards PHQ-4

S. No	Variables	Engineering		MTHD	NED	*P value	Pharmacy		MTHD	NED	*P value
		NAA	SD				NAA	SD			
1	Over the last 2 weeks, how often have you been bothered by feeling nervous, anxious or on the edge?	63 (20)	105(33)	115(37)	31(10)	<.001	82(28)	114(39)	56(19)	40 (14)	<.001
2	Over the last 2 weeks, how often have you been bothered by not being able to stop or control worrying?	65 (20)	106(34)	99(32)	44(14)	<.001	92(31)	101(35)	63 (22)	36 (12)	<.001
3	Over the last 2 weeks, how often have	60(19)	110(35)	89(28)	55(18)	<.001	75(26)	99(34)	70(24)	48 (16)	<.001

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	you been bothered by little interest or pleasure in doing things?										
4	Over the last 2 weeks, how often have you been bothered by feeling down, depressed, or hopeless?	70(22)	94(30)	97(31)	53(17)	<.001	90(31)	84(29)	70(24)	48(16)	.003

*(X²)=Chi square test; p <.05 is significant; **Abbreviation:** NA: not at all, SD: several days.MTHD: more than half the days, NED: nearly every day

Table 4.5: Response towards associated stress factors

S. No	Variables	Engineering N (%)					*P value	Pharmacy N (%)					*P value
		SD	Disagree	Neutral	Agree	SA		SD	Disagree	Neutral	Agree	SA	
1	Physical activity related stress												
	Time Management	24(8)	41(13)	107(34)	94(30)	48(15)	<.001	35(12)	39(13)	89(31)	75(26)	54(18)	<.001
	Academic Pressure	20(6)	33(10)	102(33)	94(30)	65(21)	<.001	21(7)	50(17)	80(27)	78(27)	63(22)	<.001
	Social Pressure	36(11)	45(15)	111(35)	84(27)	38(12)	<.001	50(17)	53(18)	86(30)	65(22)	38(13)	<.001
	Financial Constraints:	48(15)	50(16)	96(31)	77(24)	43(14)	<.001	41(14)	68(23)	111(38)	44(15)	28(10)	<.001
	Physical Health Concerns:	42(13)	49(16)	91(29)	81(26)	51(16)	<.001	46(16)	68(23)	75(26)	57(19)	46(16)	.021
2	Interpersonal /relationship related stress												
	Roommate Conflicts:	73(23)	35(11)	95(30)	80(26)	31(10)	<.001	90(31)	39(13)	15(26)	45(15)	43(15)	<.001
	Social Pressure:	53(17)	53(17)	102(32)	69(22)	37(12)	<.001	57(20)	68(23)	97(33)	47(16)	23(8)	<.001
	Romantic Relationships :	97(31)	30(10)	93(30)	55(17)	39(12)	<.001	129(44)	44(15)	63(21)	31(11)	25(9)	<.001
	Friendship Dynamics:	54(17)	45(14)	77(25)	97(31)	41(13)	<.001	75(26)	45(15)	63(22)	63(21)	46(16)	.025
	Family Dynamics:	66(21)	33(10)	84(27)	71(23)	60(19)	<.001	72(25)	44(15)	61(21)	71(24)	44(15)	.011
3	Family & friendships - related stress												
	Family Expectations:	40(13)	32(10)	83(26)	109(35)	50(16)	<.001	66(23)	41(14)	70(24)	70(24)	45(15)	.008
	Distance	46(15)	65(11)	88(28)	73(23)	72(23)	<.001	73(25)	44(15)	53(18)	49(17)	73(25)	.012

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Table 4.6: Comparison of Stress Factor Categories among the study participants

No.	Variables	Engineering					*P Value	Pharmacy					*P Value
		None	L	M	S	x ²		None	L	M	S	x ²	
F1	Physical activity related stress	27 (9)	78 (25)	134 (43)	75 (24)	73.1	<.001	30 (10)	81 (28)	123 (42)	58 (20)	63.5	<.001
F2	Interpersonal /relationship related stress	57 (18)	78 (25)	123 (39)	56 (18)	37.5	<.001	71 (24)	91 (31)	92 (32)	38 (13)	26.2	<.001
F3	Family & friendships - related stress	41 (13)	62 (20)	128 (41)	83 (26)	52.8	<.001	54 (18)	79 (27)	99 (34)	16 (5)	17	<.001
F4	Institution & infrastructure related stress	43 (14)	80 (25)	116 (37)	53 (17)	39.4	<.001	40 (14)	73 (25)	118 (40)	83 (28)	43.8	<.001
F5	Academic workload & facilities related stress	29 (9)	73 (23)	137 (44)	75 (24)	75.3	<.001	38 (13)	70 (24)	139 (48)	45 (15)	87.3	<.001
F6	Environmental & transport related stress	40 (13)	73 (23)	127 (40)	74 (24)	49.4	<.001	54 (18)	91 (31)	100 (34)	47 (16)	28.6	<.001
F7	Financial resources related stress	43 (14)	54 (17)	129 (41)	88 (28)	57.3	<.001	54 (18)	72 (25)	79 (27)	87 (30)	8.1	.043

*(X²)=Chi square test; p <.05 is significant Abbreviations: L = Low, M = Moderate, S = Severe

Table: 4.7 Correlation Matrix for the Various Stress Determinants and their relationship among Engineering Students

Engineering												
Variables	M(IQR)	1	2	3	4	5	6	7	8	9	10	11
PSS-10	22.0(9.0)	1										
PHQ-2	3.0(3.0)	.538**	1									
GAD-2	3.0(2.0)	.508**	.511**	1								
PHQ-4	6.0(5.0)	.594**	.741**	.764**	1							
PAR	11.0(6.0)	.411**	.383**	.431**	.455**	1						
IRR	10.0(8.0)	.455**	.417**	.450**	.517**	.532**	1					
FFR	12.0(7.0)	.417**	.366**	.406**	.461**	.550**	.611**	1				
IIR	11.5(7.0)	.433**	.398**	.481**	.495**	.577**	.582**	.634**	1			
AWFR	12.0(6.0)	.370**	.395**	.378**	.436**	.535**	.516**	.546**	.633**	1		
ETR	11.0(6.0)	.387**	.344**	.353**	.369**	.518**	.524**	.490**	.538**	.648**	1	
FRR	12.0(8.0)	.368**	.299*	.309**	.352**	.496**	.543**	.553*	.584**	.633**	.620**	1
ASF-35	79.0(41.0)	.485**	.431**	.453**	.522**	.689**	.704**	.717**	.768**	.780**	.736**	.719**

**Correlation is significant at the .05 level (2-tailed); **Correlation is significant at the .01 level (2-tailed). PAR- Physical Activity- Related stress; IRR- Interpersonal / Relationships-Related stress; FFR- Family & Friendships Related stress; IIR- Institution & Infrastructure-Related stress; AWFR- Academic Workload & Facilities -Related stress; ETR- Environmental and Transport-Related stress; FRR- Financial Resources-Related stress.

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Table: 4.8 Contd.. Correlation Matrix for the Various Stress Determinants and their relationship among Pharmacy Students

Pharmacy												
Variables	M(IQR)	1	2	3	4	5	6	7	8	9	10	11
PSS-10	20.0(8.75)	1										
PHQ-2	2.0(2.0)	.387**	1									
GAD-2	2.0(3.0)	.321**	.495**	1								
PHQ-4	5.0(5.0)	.493**	.676**	.698**	1							
PAR	11.0(5.0)	.392**	.281**	.350**	.434**	1						
IRR	9.0(7.0)	.355**	.196**	.263**	.324**	.536**	1					
FFR	10.0(8.0)	.379**	.157**	.240**	.257**	.549**	.654**	1				
IIR	10.0(6.0)	.314**	.215**	.319**	.320**	.611**	.518**	.631**	1			
AWFR	11.0(6.0)	.320**	.144**	.253**	.271**	.545**	.577**	.551**	.607**	1		
ETR	10.0(7.0)	.276**	.109	.203**	.170**	.425**	.492**	.533**	.556**	.629**	1	
FRR	11.0(9.0)	.234**	.116*	.204**	.210**	.529**	.486**	.535**	.643**	.581**	.589**	1
ASF-35	71.0(40.0)	.356**	.197**	.324**	.325**	.690**	.693**	.736**	.774**	.737**	.707**	.786**

**Correlation is significant at the .05 level (2-tailed); *Correlation is significant at the .01 level (2-tailed). PAR- Physical Activity- Related stress; IRR- Interpersonal / Relationships-Related stress; FFR- Family & Friendships Related stress; IIR- Institution & Infrastructure-Related stress; AWFR- Academic Workload & Facilities -Related stress; ETR- Environmental and Transport-Related stress; FRR- Financial Resources-Related stress. ASF – Associated Stress Factor .

Table 4.9: The cumulative perceived stress results of the analysis(N=606)

Variables	Items	Engineering					Pharmacy				
		Mean (SD)	(IQR)	Range	χ^2	*P value	Mean (SD)	(IQR)	Range	χ^2	*P value
PSS-10	10	20.51 ± 7.06	22 (9)	0 → 40	209.72	<.001	18.7 ± 7.42	20.0 (8.7)	0 → 40	180.38	<.001
PHQ-2	2	2.75 ± 1.67	3.0 (3)	0 → 6	48.93	<.001	2.33± 1.75	2.0 (2)	0 → 6	59.58	<.001
GAD-2	2	2.86 ± 1.72	3.0 (2)	0 → 6	32.08	<.001	2.57±1.7	2.0(3)	0 → 6	36.43	<.001
PHQ-4	4	5.61±3.10	6.0 (5)	0 → 12	46.77	<.001	4.90± 3.1	5.0(5)	0 → 12	61.32	<.001
PAR	5	11.15 ±4.40	11.0 (6)	0 → 20	114.56	<.001	10.38±4.39	11.0(5)	0 → 20	137.06	<.001
IRR	5	9.70 ±5.08	10.0(8)	0 → 20	92.76	<.001	8.40±4.88	9.0(7)	0 → 20	75.93	<.001
FFR	5	10.99 ±4.97	12.0(7)	0 → 20	98.91	<.001	9.80± 5.11	10.0(8)	0 → 20	95.21	<.001
IIR	5	10.83 ±4.82	11.5(7)	0 → 20	103.33	<.001	9.97±4.69	10.0(6)	0 → 20	109.01	<.001
AWFR	5	11.06 ±4.56	12.0(6)	0 → 20	121.92	<.001	10.16±4.50	11.0(6)	0 → 20	129.15	<.001
ETR	5	10.59 ±4.75	11.0(6)	0 → 20	120.05	<.001	9.19±4.83	10.0(7)	0 → 20	77.95	<.001
FRR	5	10.88 ±5.09	12.0(8)	0 → 20	118.04	<.001	10.54±5.92	11.0(9)	0 → 20	47.45	<.001
ASF-35	35	75.22 ±27.91	79.0(41)	0 → 140	123.6	.072	68.47±28.1	71.0(40)	0 → 132	101.33	.472
Overall stress scores	49	102.35±34.65	106.5(48)	0 → 192	170.12	<.001	92.15±33.74	93.0(48)	0 → 184	133.89	<.001

*Chi SquareTest; p <.05 is significant

Table 4.10: The aggregate perceived stress levels of the participants

Groups	Stress category	N (%)	Mean (SD)	Range	χ^2	*P Value
Engineering	None	23 (7)				
	Low	97 (31)	102.35±34.65	0 → 192	170.12	<.001
	Moderate	165 (53)				
	Severe	29 (9)				
Pharmacy	None	33 (11)				
	Low	124 (43)	92.15±33.74	0 → 184	133.89	<.001
	Moderate	120 (41)				
	Severe	15 (5)				

*ParsonsChisquaretest;P<.05 is significant.

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DISCUSSION

Engineering students had a median PSS-10 score of 22.0 (IQR 9.0) and pharmacy students 20.0 (8.75), with total stress scores of 102.35 ± 34.65 and 92.15 ± 33.74 ($p < .001$). About 35–41% of engineering and 33–39% of pharmacy students felt stressed "sometimes," while 21–26% and 15–20% felt stressed "fairly/very often." Female students, final-year students, and those with a family history of stress showed higher levels, with 59–62% experiencing moderate to severe stress, and main stressors included academic, financial, family, and institutional pressures affecting 67–77% of students. PHQ-4 strongly correlated with PHQ-2 ($r = 0.676$ – 0.741) and GAD-2 ($r = 0.698$ – 0.764), indicating significant links between anxiety, depression, and perceived stress.

CONCLUSION

Engineering students reported higher stress than pharmacy students, with ASF-35 scores of 75.22 vs. 68.47 and PSS-10 scores of 20.51 vs. 18.7. About 50% of pharmacy and engineering students experienced moderate stress, while 5–10% reported severe anxiety. Major stressors included academics, time management, finances, and societal pressures, highlighting the need for targeted institutional support.

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Conflict of Interest

The author(s) declared no conflict of interest.

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