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A STUDY ON DEPRESSION AMONG COLLEGE STUDENTS

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Abstract:

Depression is common among college students, yet it often goes unnoticed until it begins to affect grades and relationships. This study assessed the level of depressive symptoms among college students, compared male and female students, and examined whether academic stress was related to depression. A cross-sectional survey was conducted with 100 undergraduate and postgraduate students aged 18–25 years, recruited by convenience sampling from Malla reddy university Hyderabad. Participants completed a demographic information sheet, the Beck Depression Inventory-II (BDI-II). Data were analysed in SPSS 26 using descriptive statistics, an independent-samples t-test and Pearson's correlation. The mean BDI-II score was 20.84 (SD = 8.16), which falls in the moderate range; 35% of students scored in the moderate band and 15% in the severe band. Female students scored higher than male students (22.41 vs 18.92; $t(98) = 2.16$, $p = .033$), and academic stress correlated positively with depression ($r = .62$, $p < .001$). Put simply, half the sample reported at least moderate symptoms, and academic stress and depression shared a substantial part of their variance. Because the design was cross-sectional, the direction of this relationship cannot be established. The findings argue for screening students early in the academic year, and for counselling and stress-management support that is part of college routine rather than an occasional workshop.

Keywords: *Depression; college students; academic stress; gender differences; Beck Depression Inventory-II; mental health*

Introduction:

Depression is more than a passing low mood. A major depressive episode, as defined in DSM-5-TR, requires at least five of nine symptoms, one of which must be depressed mood or loss of interest, lasting two weeks or longer and impairing everyday functioning (American Psychiatric Association, 2022). The World Health Organization (WHO, 2025) estimates that 5.7% of adults worldwide live with depression, that women are affected about 1.5 times as often as men, and that suicide is the third leading cause of death among people aged 15–29 years.

The college years fall within this window of risk, as about three-quarters of lifetime mental disorders begin by the age of 24 (Pedrelli et al., 2015). In the WHO World Mental Health Surveys, one in five college students across 21 countries had a mental disorder in the previous year, yet only 16.4% of them had received any treatment (Auerbach et al., 2016). Figures for depression alone vary widely. A review of 24 studies reported prevalence between 10% and 85%, with a weighted mean of 30.6% (Ibrahim et al., 2013). In a sample of 5,245 Chinese students, 11.7% scored 14 or above on the Beck Depression Inventory (Chen et al., 2013), whereas pooled Iranian data (Sarokhani et al., 2013) and a survey of 461 university students using the PHQ-9 (Alsubaie et al., 2019) both arrived at 33%. Much of this spread comes down to which scale was used and where the cut-off was drawn.

Academic pressure is a recurring correlate. Among Turkish university students, 62.9% of those with poor academic performance had depressive symptoms, and poor performance raised the odds of depression more than seven-fold (Bostanci et al., 2005). At one US university, yearly visits to the counselling centre rose by 231% over four years, and academic performance and pressure to succeed were among students' leading concerns (Beiter et al., 2015). Indian research points the same way. Reddy et al. (2018) traced academic stress among university students to sources such as fear of failure and a sense of personal inadequacy, and Deb et al. (2016) linked depression in Indian university students to how they perceived their academic environment. Beck's (1967) cognitive model suggests one pathway: repeated setbacks can feed a negative view of oneself, the world and the future.

Findings on gender are less consistent. Although women are more often affected in the general population, large student samples in China and Iran showed no clear gender difference (Chen et al., 2013; Sarokhani et al., 2013). Many students with symptoms also never seek help (Hunt & Eisenberg, 2010), so colleges cannot rely on self-referral to find them. Local data are needed before services can be planned, and the present study was undertaken to provide such data.

Objectives:

1. To assess the level of depressive symptoms among college students.
2. To compare depressive symptoms between male and female students.
3. To examine the relationship between academic stress and depression.
4. To suggest measures that colleges can adopt to reduce depression among students.

Hypothesis:

H1: Male and female college students differ significantly in their depression scores.

H2: Academic stress is positively and significantly correlated with depression.

The corresponding null hypotheses (H01 and H02) state that there is no difference and no relationship, respectively.

Methodology:

Research design:

A quantitative, cross-sectional survey design was used. No variable was manipulated;

depressive symptoms were measured once and examined in relation to gender and academic stress (Figure 1).

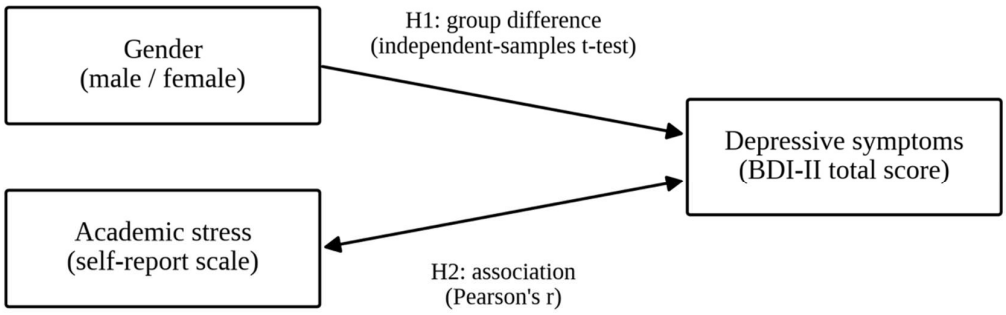

Figure 1. Conceptual framework of the study. Gender and academic stress were examined as correlates of depressive symptoms; the cross-sectional design does not permit causal inference.

Participants:

The sample consisted of 100 undergraduate and postgraduate students aged 18–25 years from Malla reddy university Hyderabad, selected by convenience sampling. Students were eligible if they were currently enrolled, within the age range and willing to give written informed consent. Those who reported a severe psychiatric disorder requiring hospitalisation were excluded, as were incomplete questionnaires. With 100 participants, the study had 80% power ($\alpha = .05$, two-tailed) to detect a correlation of about $r = .28$ or a gender difference of about $d = 0.57$, so smaller effects may have gone undetected.

Tools:

Demographic information sheet. This sheet, prepared by the researcher, recorded age, gender, year of study, educational qualification, family type, place of residence and monthly family income.

Beck Depression Inventory-II (BDI-II). This 21-item self-report inventory covers symptoms experienced over the preceding two weeks (Beck et al., 1996). Each item is scored 0–3, giving a total of 0–63 that is interpreted as minimal (0–13), mild (14–19), moderate (20–28) or severe (29–63). The manual reports an internal consistency of $\alpha = .93$ in college students.

Procedure and ethical considerations:

Permission was obtained from the participating institution. Students were told the purpose of the study and that taking part was voluntary and could be withdrawn at any stage. After written consent, the questionnaires were administered online in google form . Responses were anonymous and coded before data entry. Students whose scores fell in the severe range were given information about campus counselling and other mental health services.

Statistical analysis:

Data were analysed in SPSS version 26.0. Frequencies, percentages, means and standard

deviations described the sample and the BDI-II scores. Normality was checked with the Shapiro–Wilk test and equality of variances with Levene's test. Gender differences were tested with an independent-samples *t*-test, with Cohen's *d* as the effect size, and the association between academic stress and depression with Pearson's correlation. Significance was set at $p < .05$ (two-tailed).

Result and Discussion:

Profile of participants:

Table 1 describes the sample. Female students made up 55% of respondents, the 21–23-year age group was the largest (46%), and second-year students formed the biggest single group (34%).

Table 1. *Sociodemographic profile of participants (N = 100)*

Variable	Category	*n* (%)
Gender	Male	45 (45.0)
	Female	55 (55.0)
Age (years)	18–20	38 (38.0)
	21–23	46 (46.0)
	24–25	16 (16.0)
Year of study	First	28 (28.0)
	Second	34 (34.0)
	Third	25 (25.0)
	Postgraduate	13 (13.0)

Level of depression (Objective 1)

The mean BDI-II score was 20.84 (*SD* = 8.16), which lies in the moderate band. Half the sample scored in the moderate (35%) or severe (15%) range, and only 22% had minimal symptoms (Table 2; Figure 2a). In a class of 60, that would be about 30 students with at least moderate symptoms, and if the treatment gap reported by Auerbach et al. (2016) holds, few of them would be receiving any care. This is well above the 11.7% of Chinese students who scored 14 or more (Chen et al., 2013) and the 26.2% of Turkish students who scored 17 or more (Bostanci et al., 2005), even though the threshold used here (20) is higher. The comparison is only approximate, because the versions of the inventory differ and a convenience sample may over- or under-represent distressed students. It should also be kept in mind that the BDI-II is a screening measure. A score in the severe band signals a heavy symptom load, not a diagnosis of major depressive disorder.

Table 2. *Distribution of BDI-II depression levels (N = 100)*

Level	Score range	*n* (%)
Minimal	0–13	22 (22.0)
Mild	14–19	28 (28.0)
Moderate	20–28	35 (35.0)
Severe	29–63	15 (15.0)

Note. $M = 20.84$, $SD = 8.16$.

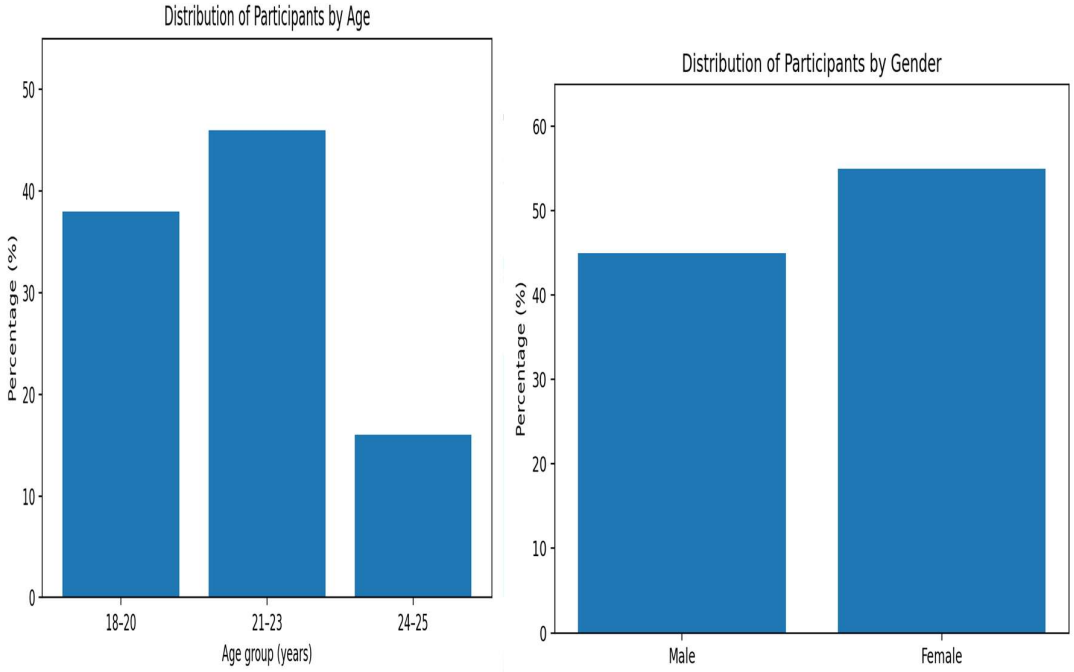

Figure 2. (a) Distribution of participants by age and gender

Gender and depression (Objective 2; H1)

Female students scored higher than male students (Table 3; Figure 2b), $t(98) = 2.16$, $p = .033$, $d = 0.44$, so H01 was rejected. The effect is small to moderate. It matches the pattern in the general population (WHO, 2025) but not the Chinese and Iranian student data, where no gender gap emerged (Chen et al., 2013; Sarokhani et al., 2013). With self-report data alone, we cannot tell whether female students had more symptoms or were simply more willing to report them.

Table 3. *BDI-II scores of male and female students*

Gender	*n*	*M*	*SD*
Male	45	18.92	7.54
Female	55	22.41	8.32

Note. $t(98) = 2.16$, $p = .033$, Cohen's $d = 0.44$.

Academic stress and depression (Objective 3; H2)

Academic stress correlated positively with BDI-II scores, $r(98) = .62$, $p < .001$, and H02 was rejected. A correlation of this size means that the two measures shared about 38% of their variance. The result agrees with the link between poor academic performance and depressive symptoms reported by Bostanci et al. (2005) and with Indian findings on academic stressors (Deb et al., 2016; Reddy et al., 2018). In Beck's (1967) terms, a student who repeatedly falls short of expectations may come to read each poor mark as proof of personal inadequacy, the kind of negative self-view that keeps depressive symptoms going. The direction of the relationship, however, remains open. Stress can lower mood, but depression also disturbs sleep and concentration, which makes coursework harder and adds to stress. Only longitudinal data can separate the two.

Limitations and implications:

The sample was small and drawn by convenience from one department, so the results cannot be generalised to all college students. All measures were self-reported, the design was cross-sectional, and factors such as social support (Alsubaie et al., 2019), sleep and finances were not measured. Within these limits, the findings support four steps for colleges: screening with a brief validated tool at the start of each academic year; counselling that students can reach easily and without stigma; stress-management and coping-skills sessions built into the timetable; and training for faculty to recognise distress and refer students. Larger multi-college and longitudinal studies should follow.

Conclusion:

Depressive symptoms were common in this sample. Half of the students scored in the moderate or severe range of the BDI-II, female students scored higher than male students, and academic stress was strongly associated with depression. Because the study was cross-sectional and relied on a convenience sample of 100 students, these results point to need rather than establish prevalence. They still make a practical case for regular screening and easy access to counselling in colleges, and for longitudinal research that tests whether reducing academic stress actually lowers depressive symptoms.

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