

THE ASSOCIATIONS BETWEEN DEPRESSION, ANXIETY, STRESS, AND ACADEMIC PERFORMANCE: A CROSS-SECTIONAL STUDY AMONG UNIVERSITY STUDENTS



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BACKGROUND

University students commonly experience depression, anxiety, and stress, which often co-occur. These psychological difficulties can impair attention, memory, motivation, and other cognitive functions, leading to poorer academic performance. University life involves academic pressures, financial demands, and social expectations, which can exacerbate mental health challenges.

GAP

Students from a university with different campuses (UK and UAE) represent culturally diverse populations, yet the combined impact of depression, anxiety, and stress on academic performance across such diverse settings is underexplored. Understanding these associations is essential to inform interventions that support students’ mental health and academic performance.

PURPOSE

To examine the associations and predictive effects of depression, anxiety, and stress on academic performance among university students across UK and UAE campuses.

METHODS

DESIGN

Quantitative, cross-sectional, correlational study.

PARTICIPANTS (N = 85)

University students recruited using purposive sampling.

GENDER

77.6% Female (n = 66); 18.8% Male (n = 16)

AGE

Mean = 20.4 years (SD = 3.4)

INSTRUMENTS

Depression, Anxiety, and Stress Scale – 21 items (DASS-21)
Academic Performance Scale (APS; self-rated)

PROCEDURE

Data were collected voluntarily and anonymously via an online survey after informed consent was obtained.

DATA ANALYSIS

Pearson correlation analyses examined relationships among variables. Simple linear regression analyses assessed the independent predictive effects of depression, anxiety, and stress on academic performance.

KEY FINDINGS

ASSOCIATIONS WITH ACADEMIC PERFORMANCE

Depression was significantly and negatively correlated with academic performance ($r = -0.50, p < .01$).
Anxiety was significantly and negatively correlated with academic performance ($r = -0.47, p < .01$).
Stress was significantly and negatively correlated with academic performance ($r = -0.47, p < .01$).

PREDICTIVE EFFECTS (SIMPLE LINEAR REGRESSION)

Each mental health variable independently predicted poorer academic performance:
Depression: $\beta = -0.50, p < .001$
Anxiety: $\beta = -0.47, p < .001$
Stress: $\beta = -0.47, p < .001$

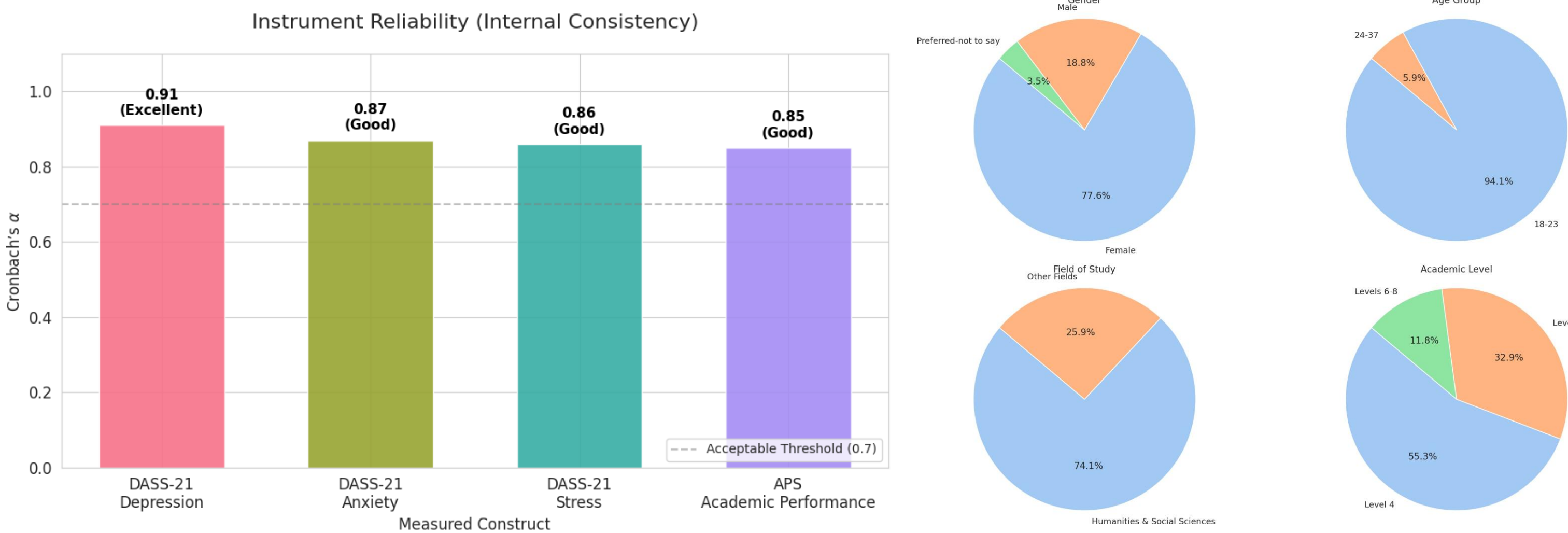
CO-OCCURRENCE OF PSYCHOLOGICAL SYMPTOMS

The three psychological states were strongly interrelated, suggesting a shared underlying psychological distress construct:
Anxiety and Stress: $r = 0.84$
Depression and Anxiety: $r = 0.74$
Depression and Stress: $r = 0.64$

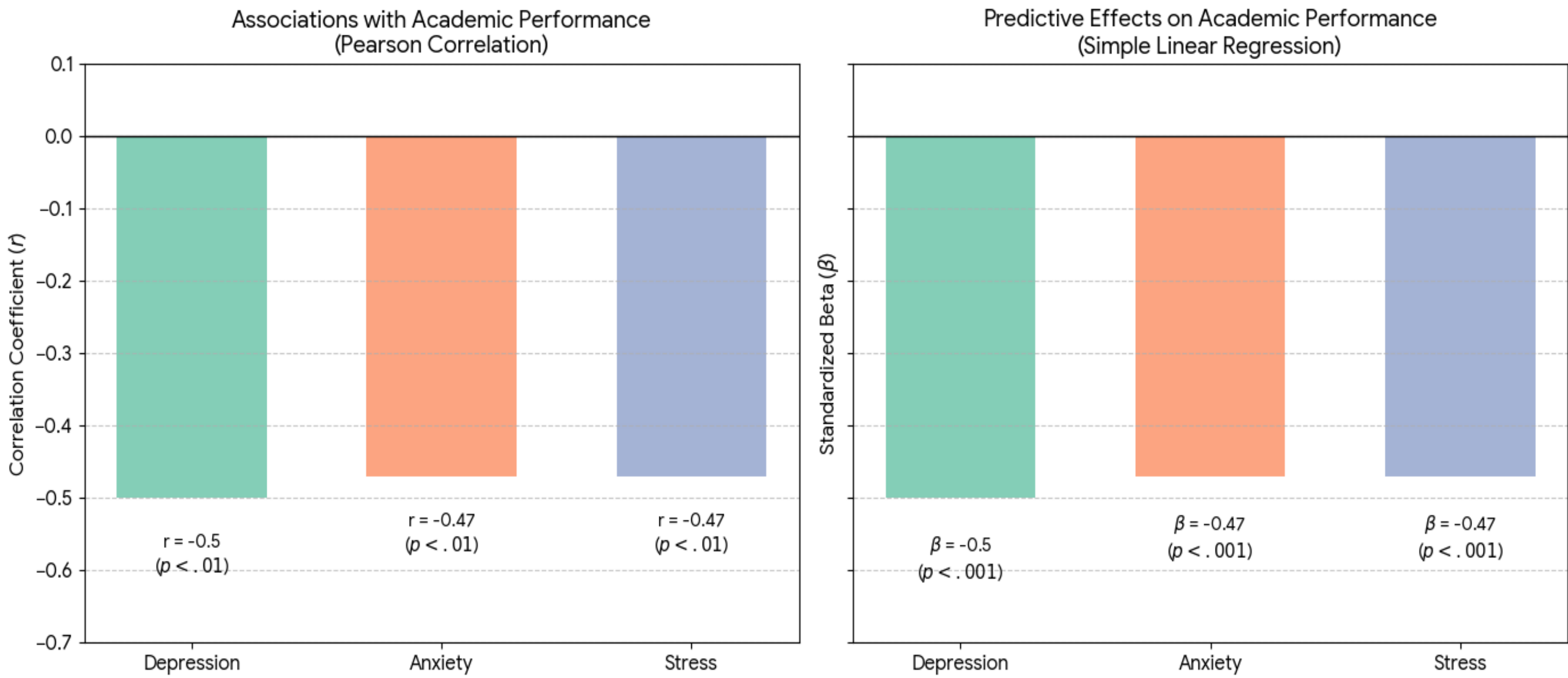
INSTRUMENT RELIABILITY (INTERNAL CONSISTENCY)

All measures demonstrated high internal reliability:
DASS-21 Depression: $\alpha = 0.91$
DASS-21 Anxiety: $\alpha = 0.87$
DASS-21 Stress: $\alpha = 0.86$
Academic Performance Scale: $\alpha = 0.85$

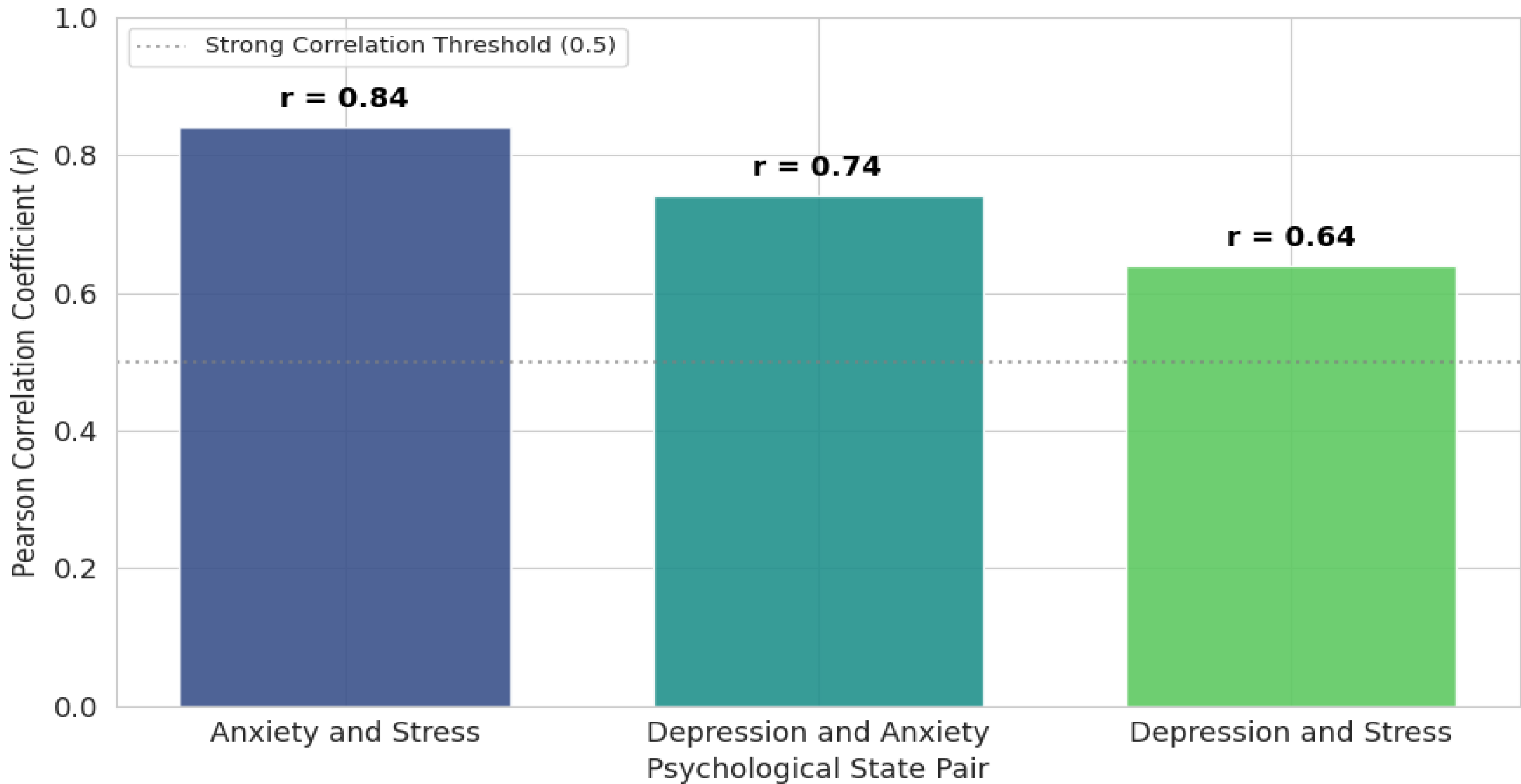
RESULTS



Impact of Mental Health Factors on Academic Performance



Co-Occurrence of Mental Health Factors (Intercorrelations)



DISCUSSION & CONCLUSION

Higher levels of depression, anxiety, and stress were significantly associated with and independently predicted poorer academic performance among university students, suggesting that common psychiatric symptom clusters may meaningfully impair functional outcomes in young adults. The strong intercorrelations among these symptoms are consistent with a shared transdiagnostic distress dimension, which may adversely affect cognitive efficiency, motivation, and executive functioning relevant to academic performance. These findings underscore the clinical importance of early identification and integrated mental health screening within university settings, with implications for preventive psychiatry and functional recovery. Timely psychological and psychiatric interventions may improve both symptom burden and role functioning in this high-risk population.

LIMITATION

The cross-sectional design and reliance on self-reported academic performance preclude causal inference and limit generalizability.

