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Predicting Academic Burnout Based on Learning Culture: Mediating Role of Self-Esteem Among Students of Islamic Azad University

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ABSTRACT

Objective: This study aimed to examine the relationship between learning culture and academic burnout among students of Islamic Azad University, Bandar Lengeh Branch, with a particular focus on the mediating role of self-esteem.

Methods: This descriptive-correlational study employed structural equation modeling (SEM). The statistical population included all 1,480 students enrolled at Islamic Azad University, Bandar Lengeh Branch, during the 2025–2026 academic year. Using proportional stratified random sampling, 306 students (172 females and 134 males) were selected. Data were collected using the Learning Culture Questionnaire (LCQ), the Maslach Burnout Inventory–Student Survey (MBI-SS), and the Rosenberg Self-Esteem Scale (RSES). Data analysis was conducted using Pearson correlation and SEM with SPSS-27 and AMOS-24.

Results: The findings showed that learning culture directly and negatively predicted academic burnout ($p < 0.05$). Learning culture also directly and positively predicted self-esteem ($p < 0.05$). In addition, self-esteem directly and negatively predicted academic burnout ($p < 0.05$). The results further indicated that self-esteem significantly mediated the relationship between learning culture and academic burnout.

Conclusions: The findings suggest that a positive and constructive learning culture can reduce students' academic burnout both directly and indirectly through enhancing self-esteem. Therefore, university administrators and educators should prioritize strategies aimed at strengthening learning culture and implementing programs that promote students' self-esteem.

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Introduction

Universities occupy a central position in the development of specialized human capital and the social, scientific, and economic advancement of societies. In addition to their instructional mission, higher education institutions shape students' personal development, professional identity, and psychosocial adjustment. However, university life is not solely a context for growth and opportunity; it is also associated with substantial academic, emotional, and social pressures. Students are often required to adapt to demanding coursework, performance expectations, financial strain, interpersonal challenges, and uncertainty about future employment. When these pressures become prolonged and poorly managed, they may undermine students' well-being and academic functioning (Savolainen et al., 2021). One of the most important consequences of such sustained strain is academic burnout.

Academic burnout is a psychological syndrome that emerges in response to chronic academic stress and persistent educational demands. Drawing on the student adaptation of burnout theory, academic burnout is typically conceptualized as comprising three interrelated dimensions: emotional exhaustion, cynicism, and reduced academic efficacy (Schaufeli et al., 2002). Emotional exhaustion refers to feelings of fatigue, depletion, and being overwhelmed by study-related responsibilities. Cynicism reflects a detached, negative, or indifferent attitude toward academic tasks, instructors, or the educational environment. Reduced academic efficacy involves a diminished sense of competence, achievement, and effectiveness in one's academic role. Academic burnout is not a temporary state of tiredness; rather, it represents a persistent and maladaptive response to educational stressors that can compromise both short-term performance and long-term educational outcomes.

The significance of academic burnout lies in its broad and harmful consequences. Previous studies have shown that students experiencing higher levels of burnout often report lower academic motivation, weaker academic engagement, poorer grades, greater absenteeism, and stronger intentions to withdraw from study programs. Burnout is also associated with serious mental health concerns, including depressive symptoms, anxiety, hopelessness, and reduced life satisfaction (Park et al., 2020). Because student burnout can affect not only individual well-being but also institutional retention and educational quality, identifying its antecedents is an important priority for both researchers and university administrators.

A growing body of scholarship suggests that academic burnout cannot be understood solely in terms of individual weakness or personal inability to manage stress. Rather, it is shaped by a dynamic interaction between environmental conditions and individual psychological resources. Among the environmental factors that may influence burnout, the cultural characteristics of the learning environment deserve greater attention. Learning culture refers to the shared values, beliefs, expectations, norms, and behavioral patterns that govern teaching and learning within an educational setting (Wu et al., 2021). It reflects how learning is understood, supported, organized, and experienced by students and instructors. In practical terms, learning culture shapes whether students perceive the university environment as supportive, participatory, and growth-oriented, or as rigid, stressful, and alienating.

A positive learning culture is generally characterized by meaningful student participation, constructive instructor support, encouragement of critical and deep learning, collaborative interaction, flexibility in teaching strategies, and a climate of respect and belonging. Such an environment can strengthen students' engagement, confidence, and sense of purpose. In contrast, a negative learning culture may emphasize excessive competition, rote memorization, authoritarian teaching practices, weak communication, emotional distance, and unrealistic or unnecessary pressure (Abdullah et al., 2019). These conditions may increase stress, reduce perceived control, and weaken students' psychological connection to the educational process. From this perspective, learning culture may serve as a foundational contextual determinant of academic burnout.

At the same time, the effect of the learning environment on student outcomes is not always direct. Internal psychological mechanisms may explain how environmental experiences are translated into emotional and behavioral consequences. One important mechanism in this regard is self-esteem. Self-esteem refers to an individual's global evaluation of personal worth, value, and self-acceptance (Rosenberg, 1965). It is a core aspect of psychological functioning and has been linked to motivation, coping, resilience, and mental health across diverse contexts. Students with higher self-esteem are more likely to interpret setbacks as manageable, maintain confidence in their ability to improve, and persist in the face of academic challenges. In contrast, students with lower self-esteem may be more vulnerable to self-doubt, fear of failure, sensitivity to criticism, and withdrawal from demanding tasks (Zahrakar et al., 2021).

In the academic setting, self-esteem may function as a protective psychological resource. Students who perceive themselves as competent and valuable are better positioned to manage educational stressors and maintain emotional balance under pressure. High self-esteem can support adaptive coping, greater perseverance, and stronger academic adjustment. By contrast, low self-esteem has been associated with helplessness, avoidance, diminished motivation, and increased emotional distress, all of which may increase susceptibility to burnout symptoms (Sami et al., 2019). Thus, self-esteem may play a central role in explaining why some students remain resilient in stressful educational settings while others experience significant academic exhaustion and disengagement. Theoretically, the relationship among learning culture, self-esteem, and academic burnout can be understood within a contextual-psychological framework. A supportive learning culture may foster students' sense of recognition, competence, and belonging, thereby strengthening their self-esteem. In turn, stronger self-esteem may help students cope more effectively with academic demands and reduce the likelihood of emotional exhaustion, cynicism, and perceived inefficacy. In this framework, self-esteem acts as a mediating variable that transmits part of the effect of learning culture on academic burnout. This mediating perspective is conceptually important because it moves beyond a simple direct-effects model and helps explain the psychological process through which educational environments influence students' well-being.

This issue is especially important in the context of universities located in less advantaged regions. Students in such settings may encounter additional challenges related to limited educational resources, restricted access to academic support services, fewer extracurricular opportunities, and broader socioeconomic pressures. These contextual constraints may intensify stress and heighten vulnerability to burnout. Islamic Azad University, Bandar Lengeh Branch, as one of the important higher education institutions in the region, provides a meaningful context in which to investigate these issues. Understanding the environmental and psychological predictors of academic burnout in this setting may help administrators and policymakers design more targeted interventions to support student well-being, improve academic persistence, and strengthen educational effectiveness.

The existing literature provides preliminary support for the proposed relationships. Studies have shown that students' perceptions of a supportive and constructive learning culture are associated with lower levels of academic burnout (Wu et al., 2021). Similarly, learning environments that

emphasize participation, collaboration, and supportive interaction have been linked to lower emotional exhaustion and cynicism (Abdullah et al., 2019). Other research suggests that positive educational climates can contribute to stronger self-evaluations and healthier academic self-perceptions among students (Sami et al., 2019; Zaharakar et al., 2021). In addition, self-esteem has been identified as an important predictor of academic and psychological adjustment, with lower self-esteem associated with greater burnout symptoms over time (Park et al., 2020). Domestic evidence has also indicated that self-esteem negatively predicts dimensions of academic burnout among university students, including those in health-related disciplines (Moradi et al., 2020). Although research directly examining the mediating role of self-esteem between learning culture and academic burnout remains limited, related findings suggest that self-related beliefs, such as academic self-efficacy, may mediate the relationship between educational climate and burnout (Li et al., 2022). These findings provide indirect support for the present conceptual model.

Despite the growing relevance of this topic, there remains a gap in the literature, particularly in the Iranian higher education context. Few studies have simultaneously examined learning culture, self-esteem, and academic burnout within a unified structural model, and even fewer have focused on students in regional university contexts such as Bandar Lengeh. Addressing this gap is important because interventions aimed at reducing burnout are likely to be more effective when they consider both environmental and psychological pathways. By clarifying the direct and indirect relationships among these variables, the present study may contribute to theory development as well as evidence-based educational planning.

Accordingly, the main objective of this study was to test a model of academic burnout based on learning culture, with the mediating role of self-esteem, among students of Islamic Azad University, Bandar Lengeh Branch. Based on the theoretical background and prior empirical findings, the following hypotheses were proposed:

1. Learning culture directly predicts academic burnout.
2. Learning culture directly predicts self-esteem.
3. Self-esteem directly predicts academic burnout.
4. Self-esteem mediates the relationship between learning culture and academic burnout.

Material and Methods

This study was applied in purpose and descriptive-correlational in data collection method. Specifically, Structural Equation Modeling (SEM) was used to test the mediating role.

The statistical population of this study consisted of all students enrolled at Islamic Azad University, Bandar Lengeh Branch, in the first semester of the 2025-2026 academic year, numbering 1480 according to statistics from the University Education Office. To determine the sample size, Cochran's formula for finite populations was used. Considering a type I error of 0.05, an approximate variance of 0.5, and an estimation precision of 0.05, the Initial sample size was calculated as 306. Proportional stratified random sampling was used to select the sample. For this purpose, a list of students by gender was prepared. Then, based on the proportion of each gender in the main population, the quota for each stratum was determined, and members were randomly selected from each stratum. Inclusion criteria included willingness to participate in the study and a minimum of one semester of academic experience. The exclusion criterion was incomplete questionnaires.

Learning Culture Questionnaire (LCQ): This questionnaire was designed and validated by Wu et al. (2021). It contains 20 items and 4 subscales: 1) Emphasis on Critical and Analytical Thinking (5 items), 2) Instructor Support (5 items), 3) Student Participation and Collaboration (5 items), and 4) Flexibility in Learning (5 items). Responses are scored on a 5-point Likert scale from "1=Strongly Disagree" to "5=Strongly Agree." The total score is the sum of item scores, with a higher score indicating a stronger perception of a positive learning culture. Wu et al. (2021) reported the overall reliability of the questionnaire with a Cronbach's alpha of 0.89. In this study, the reliability of the entire questionnaire and its subscales was calculated using Cronbach's alpha as 0.87, 0.81, 0.84, 0.79, and 0.82, respectively. Its face and content validity were confirmed by 5 professors of educational psychology.

Maslach Burnout Inventory-Student Survey (MBI-SS): This inventory, adapted for educational settings by Schaufeli et al. (2002), contains 15 items and 3 subscales: 1) Emotional Exhaustion (5 items), 2) Cynicism (5 items), and 3) Academic Inefficacy (5 items). Responses are scored on a 7-point Likert scale from "0=Never" to "6=Always." Higher scores on the Emotional Exhaustion and Cynicism subscales and a lower score on the Academic Inefficacy subscale indicate a higher level of academic burnout. Schaufeli et al. (2002) reported its reliability with Cronbach's alpha between

0.73 and 0.86. In this study, Cronbach's alpha for the entire questionnaire was 0.89, and for the Emotional Exhaustion, Cynicism, and Inefficacy subscales, it was 0.82, 0.85, and 0.78, respectively.

Rosenberg Self-Esteem Scale (RSES): This well-known scale, designed by Rosenberg (1965), contains 10 items that measure individuals' general feelings about themselves. Responses are scored on a 4-point Likert scale from "1=Strongly Disagree" to "4=Strongly Agree." Items 2, 5, 6, 8, and 9 are reverse-scored. The total score ranges from 10 to 40, with a higher score indicating higher self-esteem. This questionnaire has demonstrated acceptable validity and reliability in numerous domestic studies (e.g., Cronbach's alpha of 0.84 in Mohammadi & Fallah, 2019). In this research, its reliability was calculated with a Cronbach's alpha of 0.86.

After obtaining necessary permits from the university and ethical approval, coordination was made with volunteer students by visiting various classrooms based on predetermined quotas. The research objectives, confidentiality of information, and the right to withdraw at any stage were fully explained to participants. The questionnaire package was then provided to them, and adequate time (about 20 minutes) was allotted for completion. Finally, 306 questionnaires were collected, and data from all 306 were entered for analysis.

Data were analyzed using SPSS version 27 and AMOS version 24 software. At the descriptive statistics level, mean, standard deviation, and tabulation were used. At the inferential statistics level, Pearson correlation coefficient was used to examine the relationship between variables, and structural equation modeling was used to test the research hypotheses. Model fit indices including χ^2/df , CFI, GFI, RMSEA, and TLI were also examined.

Results

Of the 306 participants, 172 (56.2%) were female and 134 (43.8%) were male. The mean age of participants was 21.75 years with a standard deviation of 2.45. Regarding educational level, 245 (80.1%) were undergraduate students and 61 (19.9%) were graduate students.

Table 1. Descriptive Statistics and Correlation Matrix of Research Variables

Variable	Mean	Standard Deviation	1	2	3
1. Learning Culture	72.34	9.87	1		
Self-Esteem	30.56	5.12	**0.51	1	
Academic Burnout	48.21	11.45	**-.047	**-.040	1

**p < 0.01

As Table 1 shows, there was a positive and significant correlation between learning culture and self-esteem ($r = .51, p < .01$), a negative and significant correlation between learning culture and academic burnout ($r = -.47, p < .01$), and a negative and significant correlation between self-esteem and academic burnout ($r = -.40, p < .01$). These findings provide the necessary prerequisites for conducting structural equation modeling.

To test the conceptual model of the research and the mediating role of self-esteem, structural equation modeling was used. The initial model included direct paths from learning culture to academic burnout, learning culture to self-esteem, and self-esteem to academic burnout. The fit indices of the final model are presented In Table 2.

Table 2. Model Fit Indices

Fit Index	Desired Value	Calculated Value	Result
X ² /df	< 3	2.14	Good
CFI	0.90	0.96	Good
GFI	0.90	0.93	Good
TLI	0.90	0.95	Good
RMSEA	< 0.08	0.06	Good

As observed, all fit Indices are within the desired range, indicating that the proposed model has a good fit with the data.

Table 3. Regression Coefficients for Paths

Path	Standardized Coefficient (β)	t-value	Significance Level (p)
Learning Culture → Academic Burnout	-0.45	-5.82	< 0.001
Learning Culture → Self-Esteem	0.52	7.01	< 0.001
Self-Esteem → Academic Burnout	-0.38	-4.95	< 0.001
Learning Culture → Self-Esteem → Academic Burnout	-0.20	-4.12	< 0.001

The analysis results In Table 3 show that:

The direct path from learning culture to academic burnout is negative and significant ($\beta = -0.45, p < .001$). Therefore, hypothesis 1 is confirmed.

The direct path from learning culture to self-esteem is positive and significant ($\beta = 0.52, p < .001$). Therefore, hypothesis 2 is confirmed.

The direct path from self-esteem to academic burnout is negative and significant ($\beta = -0.38, p < .001$). Therefore, hypothesis 3 is confirmed.

The Indirect path from learning culture through self-esteem to academic burnout is also negative and significant ($\beta = -0.20$, $p < .001$). Since both direct paths remained significant, it can be concluded that self-esteem plays a partial mediating role in this relationship. Therefore, hypothesis 4 is also confirmed.

Overall, the variables of learning culture and self-esteem were able to explain 38% of the variance in academic burnout ($R^2 = 0.38$).

Discussion

This study aimed to predict academic burnout based on learning culture with the mediating role of self-esteem among students of Islamic Azad University, Bandar Lengeh Branch. The findings generally showed that the proposed model had a good fit with the data, and all research hypotheses were confirmed.

Explanation of Hypothesis 1: Findings indicated that learning culture directly and negatively predicts academic burnout. This means that in educational environments with a positive, participatory, and supportive learning culture, students experience lower levels of emotional exhaustion, cynicism, and feelings of inefficacy. This finding aligns with the results of Wu et al. (2021) and Abdullah et al. (2019). Explaining this finding, it can be said that a strong learning culture, by emphasizing analytical thinking over rote memorization, reduces the psychological pressure associated with exams. Furthermore, instructor support and the opportunity for active participation in class increase students' sense of belonging and meaning, preventing feelings of isolation and aimlessness, which are key factors in cynicism. Also, flexibility in learning methods allows students to adapt to their personal learning styles, which in turn enhances their sense of efficacy.

Explanation of Hypothesis 2: Results indicated that learning culture is a positive and significant predictor of students' self-esteem. This result is consistent with the findings of Zaharakar et al. (2021) and Sami et al. (2019). When a student is in an environment where their opinions are heard, supported by their instructors, can collaborate in group activities, and has autonomy in their learning method, the feeling of being a capable, effective, and valuable individual is gradually strengthened. These positive experiences directly impact the individual's overall self-evaluation (i.e., self-esteem). In contrast, a negative and authoritarian learning culture that focuses solely on

quantitative performance can damage students' self-esteem by creating fear of failure and unhealthy social comparisons.

Explanation of Hypothesis 3: Findings showed that self-esteem directly and negatively predicts academic burnout. This result is consistent with the research of Park et al. (2020) and Moradi et al. (2020). Students with higher self-esteem, when facing difficult tasks and exam stress, are more likely to use problem-focused coping strategies and accept temporary failures as part of the learning process, not as evidence of their inherent inability. This attitude reduces their emotional exhaustion and cynicism. Moreover, these students, due to belief in their abilities, set more realistic goals and show greater persistence in pursuing them, ultimately leading to a higher sense of efficacy.

Explanation of Hypothesis 4 (Mediating Role): The most important finding of this study was the confirmation of the partial mediating role of self-esteem in the relationship between learning culture and academic burnout. This finding indicates that learning culture affects the reduction of academic burnout both directly and indirectly through strengthening self-esteem. This mechanism is theoretically explicable: a positive educational environment (the distal independent variable) first influences an internal psychological characteristic of the individual (self-esteem), and this internal characteristic then acts as a shield, protecting the individual against stresses and preventing the negative outcome (academic burnout). This finding provides a more comprehensive perspective, showing that the impact of the educational environment on students' mental health is not merely a simple causal relationship but also occurs through internal psychological processes. This result is partially supported by the findings of Li et al. (2022) on the mediating role of self-efficacy.

Overall Conclusion: In summary, it can be concluded that both environmental factors (learning culture) and individual factors (self-esteem) play a vital role in explaining the academic burnout of students at Islamic Azad University, Bandar Lengeh Branch. A favorable learning culture both directly prevents the onset of burnout and, by strengthening the foundations of students' self-esteem, indirectly makes them resistant to this harmful phenomenon.

Based on the findings of this study, it is suggested that the administrators and educational planners of Islamic Azad University, Bandar Lengeh Branch, organize workshops for instructors to familiarize them with the dimensions of a positive learning culture and supportive, participatory

teaching methods. Also, creating a space for open dialogue between instructor and student, encouraging group work, and reducing the sole focus on grades and rankings can be effective in promoting learning culture. On the other hand, establishing an active university counseling center focused on conducting self-esteem enhancement and stress coping skills workshops can play a significant role in strengthening students' internal protective mechanisms.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the ethics committee of Islamic Azad University. The patients/participants provided their written informed consent to participate in this study.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection, and analysis. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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