Designing an Academic Failure Model Based on Fear of Failure and Academic Burnout with the Mediating Role of Mindfulness

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A r t i c l e   I n f o

Article type:
Original Research

How to cite this article:

A B S T R A C T

Objective: The present study aimed to develop an academic failure model based on fear of failure and academic burnout, with the mediating role of mindfulness, among second-grade high school students in Ardabil city.

Methods and Materials: This applied research employed a quantitative–analytical design using structural equation modeling. The statistical population comprised 2,890 male and female second-grade high school students who had experienced academic failure or were at risk of it, identified through official data from the Department of Education. A purposive sampling method was used, and 510 students meeting the inclusion criteria participated. Data were collected using the Performance Failure Appraisal Inventory (Conroy, 2001), the Academic Burnout Questionnaire (Breso et al., 1997), and the Mindfulness Questionnaire (Baer et al., 2006), all with acceptable reliability (Cronbach's α = 0.70–0.72). Data analysis was conducted with SPSS and LISREL, assessing direct and indirect effects through path analysis and bootstrap mediation testing.

Findings: Fear of failure had a significant direct negative effect on mindfulness ($\beta = -0.33$, $p < 0.001$) and a significant direct positive effect on academic failure ($\beta = 0.35$, $p < 0.001$). Academic burnout had a significant direct negative effect on mindfulness ($\beta = -0.40$, $p < 0.001$) and a significant direct positive effect on academic failure ($\beta = 0.40$, $p < 0.001$). Mindfulness had a significant direct negative effect on academic failure ($\beta = -0.32$, $p < 0.001$). Indirect effect analysis indicated that both fear of failure ($\beta = 0.1056$, $p < 0.001$) and academic burnout ($\beta = 0.1280$, $p < 0.001$) influenced academic failure positively and significantly via mindfulness. The final model demonstrated good fit indices (e.g., RMSEA = 0.05, CFI = 0.97).

Conclusion: Fear of failure and academic burnout significantly increase the likelihood of academic failure both directly and indirectly through reduced mindfulness. Enhancing mindfulness in students may serve as a protective mechanism to mitigate the adverse effects of these psychological risk factors on academic performance.

Keywords: Academic failure; Fear of failure; Academic burnout; Mindfulness

1. Introduction

Academic failure remains one of the most pressing challenges in contemporary education, with significant implications for students' academic trajectories, psychological well-being, and long-term socioeconomic outcomes (Adaricheva et al., 2025; American Psychological, 2019). It is a multifaceted phenomenon influenced by cognitive, emotional, motivational, and contextual variables that interact in complex ways (Ikram et al., 2025). Among the wide array of factors linked to academic failure, fear of failure and academic burnout have emerged as central psychological determinants (Cashman et al., 2023; Estrada Araoz et al., 2023). Both constructs not only exert direct effects on learning and performance outcomes but also operate through intermediary variables such as mindfulness, which can modulate the intensity and direction of their impact (Tanveer & Kamran, 2023; Wulandari & Rinaldi, 2024). Understanding these relationships is critical for designing interventions that can mitigate failure risk and foster resilience in students (Martin, 2025; Nakhla & Allan, 2025).

Fear of failure is broadly conceptualized as a dispositional or situational tendency to avoid evaluative situations due to anticipated negative consequences such as shame, loss of self-esteem, or disapproval from significant others (Geraghty, 2025; Sagar & Jowett, 2023). Rooted in social-cognitive theory, fear of failure reflects both learned expectations and self-referent beliefs that shape academic engagement and motivation (Martin, 2025; Wang & Hall, 2020). Empirical evidence demonstrates that high fear of failure is associated with maladaptive coping strategies, lower academic self-efficacy, and heightened academic stress (Nair & Sutar, 2023; Satici & Can, 2023). Furthermore, it mediates the relationship between educational expectations and stress-related complaints among adolescents (Cashman et al., 2023), highlighting its dual role as both an antecedent and a consequence of adverse academic experiences. This emotional state can also undermine persistence, risk-taking, and learning flexibility, thereby increasing vulnerability to academic underperformance (Snyder & Witmer, 2025; Szczygieł & Jelińska, 2023).

Academic burnout, characterized by emotional exhaustion, cynicism, and a sense of reduced academic efficacy, has become increasingly prevalent, especially in the wake of disruptions such as the COVID-19 pandemic (Gajderowicz et al., 2025; Metz & Dreer, 2024). Burnout is not merely a transient reaction to academic demands; it represents a chronic state of psychological strain that can erode students' intrinsic motivation and capacity for sustained effort (Hamaideh et al., 2020; Serafica & Muria, 2023). Research indicates that burnout predicts declines in academic performance and engagement (Estrada Araoz et al., 2023; Pellerone et al., 2020), with severe cases leading to withdrawal from academic programs or complete disengagement from educational pursuits (Chirico et al., 2024; Hiratsuka & Heath, 2025). Factors contributing to burnout include high academic workload, inadequate instructional support, and limited autonomy (Foster & Wilkerson, 2023; Leung & Lo, 2024). Moreover, academic burnout is strongly linked to emotion regulation difficulties, which may intensify its detrimental impact on performance (Metz & Dreer, 2024).

Mindfulness, defined as the capacity to attend to present-moment experiences with openness and nonjudgment (Gilbert et al., 2023), has gained increasing attention as a protective factor against various academic stressors, including fear of failure and burnout (Tanveer & Kamran, 2023; Wang et al., 2024). By fostering greater awareness and acceptance of thoughts and emotions, mindfulness can interrupt maladaptive cognitive cycles that contribute to stress and disengagement (Wulandari & Rinaldi, 2024). Mindfulness-based interventions have been shown to alleviate academic burnout and enhance psychological well-being among students in different educational contexts (Chirico et al., 2024; Wang et al., 2024). Despite its promise, fears and resistances to mindfulness practices—such as concerns about confronting uncomfortable emotions—may limit its adoption and efficacy (Gilbert et al., 2023). Consequently, exploring mindfulness as a mediating mechanism between fear of failure, burnout, and academic failure is essential to clarifying its potential as an intervention target.

The interplay between fear of failure, academic burnout, and mindfulness unfolds within a broader educational ecosystem shaped by teacher effectiveness, instructional quality, and learning environments (Foster & Wilkerson, 2023; Leung & Lo, 2024). Studies reveal that effective teachers can buffer the negative effects of students' psychological vulnerabilities on achievement (Leung & Lo, 2024), while inadequate instructional design or remote learning challenges—exacerbated during the pandemic—can amplify stress and disengagement (Morris et al., 2025; Timmons et al., 2022). Additionally, the availability of high-quality learning materials and equitable access to

educational opportunities significantly influences students' capacity to cope with academic challenges (Adaricheva et al., 2025; Camilli, 2025). Socioeconomic status further shapes these dynamics, as students from disadvantaged backgrounds often encounter greater academic stress and fewer coping resources (American Psychological, 2019).

Recent findings also highlight that technological advancements and AI-based tools are reshaping study habits and performance outcomes (Ward et al., 2024). While such tools can enhance learning efficiency, they may also introduce new stressors, such as digital fatigue or reduced self-regulation, which could interact with fear of failure and burnout (Lindblom & Fälth, 2021; Ward et al., 2024). Similarly, cultural and contextual factors influence how students perceive and respond to academic failure. For instance, research on student-athletes reveals that fear of failure can be moderated by the quality of interpersonal support and feedback (Sagar & Jowett, 2023), while in other settings, parental involvement and social-emotional learning initiatives have been linked to stronger resilience against performance-related stress (Szczygieł & Jelińska, 2023).

In this context, early identification of students at risk for academic failure is vital. Predictive models employing academic, behavioral, and psychological indicators have shown promise in detecting students who may require targeted interventions (Ikram et al., 2025). However, predictive analytics must be complemented by psychosocial support strategies that address underlying risk factors like fear of failure and burnout (Martin, 2025; Nakhla & Allan, 2025). Evidence suggests that interventions integrating mindfulness training into academic support programs can improve self-regulation, reduce avoidance behaviors, and enhance resilience (Tanveer & Kamran, 2023; Wang et al., 2024).

Academic stress—a common antecedent to both fear of failure and burnout—remains a pervasive issue across educational levels (Lindblom & Fälth, 2021; Satici & Can, 2023). It can be exacerbated by procrastination, low self-efficacy, and perfectionistic tendencies (Nair & Sutar, 2023; Satici & Can, 2023). Moreover, research underscores that academic stress interacts with environmental factors, such as school climate and identity development, to influence outcomes like engagement and success (Pellerone et al., 2020). From a motivational perspective, theories of achievement motivation emphasize that failure beliefs can become self-fulfilling, reinforcing avoidance behaviors and undermining effort (Martin, 2025; Wang & Hall, 2020).

Taken together, these strands of research converge on the need for an integrated model that captures both the direct and indirect pathways through which fear of failure and academic burnout contribute to academic failure, with mindfulness as a potential mediating factor. Such a model would allow educators, policymakers, and mental health professionals to design interventions that address not only cognitive and instructional dimensions of learning but also the emotional and self-regulatory capacities that enable students to thrive (Hiratsuka & Heath, 2025; Snyder & Witmer, 2025). By situating the problem within a holistic framework that incorporates psychological, social, and contextual determinants, it becomes possible to identify leverage points for prevention and support (Metz & Dreer, 2024; Serafica & Muria, 2023).

The aim of the present study is to design and test a structural model of academic failure based on fear of failure and academic burnout, with mindfulness as a mediating variable, among high school students in Ardabil.

2. Methods and Materials

2.1. Study Design and Participants

From the perspective of objectives, the present research is applied, and from the perspective of data analysis method, it is quantitative–analytical.

The statistical population in the present study consisted of male and female second-grade high school students in Ardabil city who had experienced academic failure or were on the verge of academic failure. Based on official data obtained from the Department of Education, their total number was 2,890 individuals. The sampling method used in the present study was purposive sampling.

The inclusion criteria for those on the verge of academic failure included: students who had failed in their current academic grade, a significant drop in their grade point average compared to the previous academic year, frequent absenteeism (attending school only 2 or 3 days per week), and dropping out of school. The exclusion criteria from the study included unwillingness to participate in the study and incomplete or invalid questionnaires.

2.2. Measures

The Performance Failure Appraisal Inventory (Conroy, 2001) was developed to assess fear of failure in individuals. It includes 41 items within five subscales: fear of shame and embarrassment, devaluation of self-esteem, uncertain future,

loss of social influence, and upsetting important others. Items are scored on a 5-point Likert scale, and some items are reverse scored. The total score ranges from 41 to 205, based on which fear of failure is categorized into low, moderate, and high levels. For each subscale and the total score, the relevant items are summed. Face and content validity of the questionnaire have been confirmed by experts, and subscale reliability has been reported above 0.7. In the present study, Cronbach's alpha coefficient was estimated at 0.71.

The Academic Burnout Questionnaire (Breso et al., 1997) contains 15 items and three components (emotional exhaustion, cynicism, and academic inefficacy) to assess academic burnout. Items are rated on a 7-point Likert scale. Scores between 15 and 37 indicate low burnout, scores between 37 and 60 moderate burnout, and scores above 60 very high burnout. The validity and reliability of this questionnaire exceed 0.7, and its reliability has been confirmed by the developers as well as other researchers (Azizi Abrqouei et al., 2013; Marzouqi et al., 2013). Various studies have reported high validity and reliability for this questionnaire. In the present study, Cronbach's alpha coefficient was calculated as 0.72.

The Mindfulness Questionnaire (Baer et al., 2006) is a 39-item tool with five main components (observing, describing, acting with awareness, non-judging, and non-reactivity) that measures mindfulness on a 5-point Likert scale (from 1 = never to 5 = always). The total score ranges from 39 to 195, with higher scores indicating stronger mindfulness (39–78 = low, 78–117 = moderate, above 117 = high). Various studies

have confirmed the reliability and validity of this questionnaire, with Cronbach's alpha ranging between 0.75 and 0.91, and inter-component correlation coefficients ranging from 0.15 to 0.34. In the Iranian sample, reliability coefficients ranged from 0.55 to 0.83, and test–retest correlation coefficients from 0.57 to 0.84. In the present study, Cronbach's alpha coefficient was 0.70.

2.3. Data Analysis

In this study, both measurement models and structural models were used for data analysis. Initially, the questionnaire data were entered into SPSS and then into LISREL. Pearson's correlation coefficients were examined with SPSS, and the measurement and structural models were tested using LISREL. Before modeling, assumptions such as the presence of outliers, skewness and kurtosis, multicollinearity, normality, independence of residuals, correlation matrix, and the Durbin–Watson statistic were evaluated.

3. Findings and Results

To obtain descriptive information on the research variables and their subscales (fear of failure, academic burnout, mindfulness, and academic failure), and to organize, summarize, describe, and interpret the collected data from the statistical sample, the mean, standard deviation, and score ranges for the research variables were calculated, as shown in Table 1.

Table 1

Mean, Standard Deviation, Minimum, and Maximum Scores of Research Variables

Research Variables	Mean	Standard Deviation	Minimum Score	Maximum Score
Fear of failure	130.69	34.39	91	193
Academic burnout	66.20	20.17	39	99
Mindfulness	71.76	18.94	38	101
Academic failure	8.52	3.92	2	14

As shown in Table 1, the descriptive statistics of the participants' scores for each research variable (fear of failure, academic burnout, mindfulness, and academic failure) are presented.

For the structural equation modeling assumptions, the Mahalanobis distance was examined. The maximum value in the data file (5.688) did not exceed the critical value for the degree of freedom (df = 1), which is 16.27, indicating no multivariate outliers.

The skewness and kurtosis of the variables were examined to determine whether they fell between -2 and +2, in which case no transformation would be needed. In the present study, skewness and kurtosis values ranged from 0.641 to 1.538, thus meeting the assumption.

To ensure no multicollinearity, tolerance and variance inflation factor (VIF) indices were examined. Results showed that VIF values ranged from 1.024 to 1.368, and

tolerance values from 0.731 to 0.977, indicating no multicollinearity problem.

In the present study, the Durbin–Watson statistic was 2.01, indicating an acceptable level.

Since the basis of path analysis is the correlation between variables, the correlation matrix for the research variables is presented in Table 2.

Table 2

Pearson Correlation Coefficients for Research Variables

	1	2	3	4
1- Fear of failure	1			
2- Academic burnout	0.961	1		
3- Mindfulness	-0.890	-0.858	1	
4- Academic failure	0.501	0.374	*-0.152*	1

As shown in Table 2, there were significant relationships between the research variables. To confirm the accuracy of the structural model results and their overall relationships, the overall goodness-of-fit indices are presented in **Table 3**.

Table 3

Goodness-of-Fit Indices for the Structural Model

	Research Structural Model
RMSEA	0.05
SRMR	0.03
NFI	0.97
NNFI	0.92
CFI	0.97
IFI	0.96
AGFI	0.93
GFI	0.98
χ^2/df	1.47

As shown in Table 3, the two fit indices RMSEA and SRMR (standardized) indicate better fit the closer they are to zero. Conventionally, values equal to or less than 0.05 indicate good fit. Conversely, the fit indices NFI, NNFI, CFI, IFI, AGFI, and GFI indicate good fit when equal to or greater than 0.90 (Garson, 2009), with a value of 1 indicating perfect fit.

Figure 1

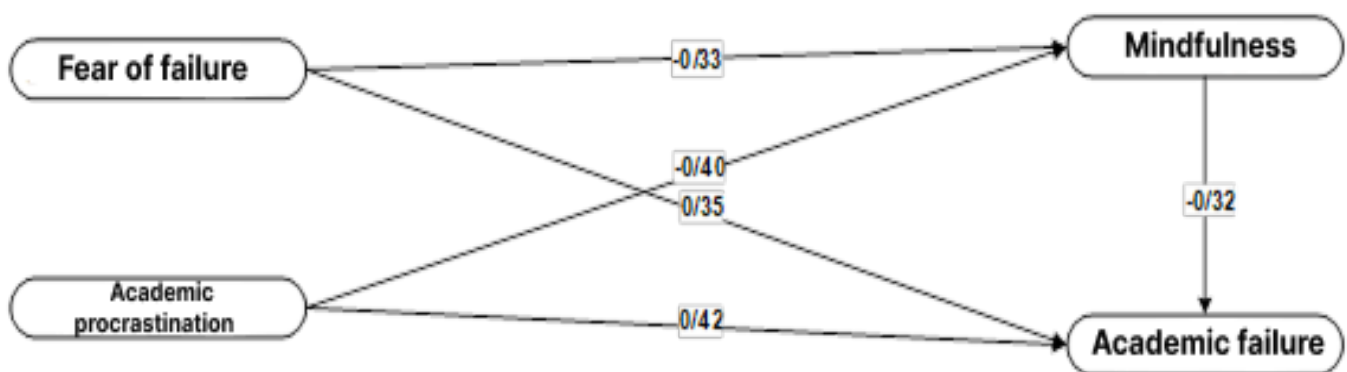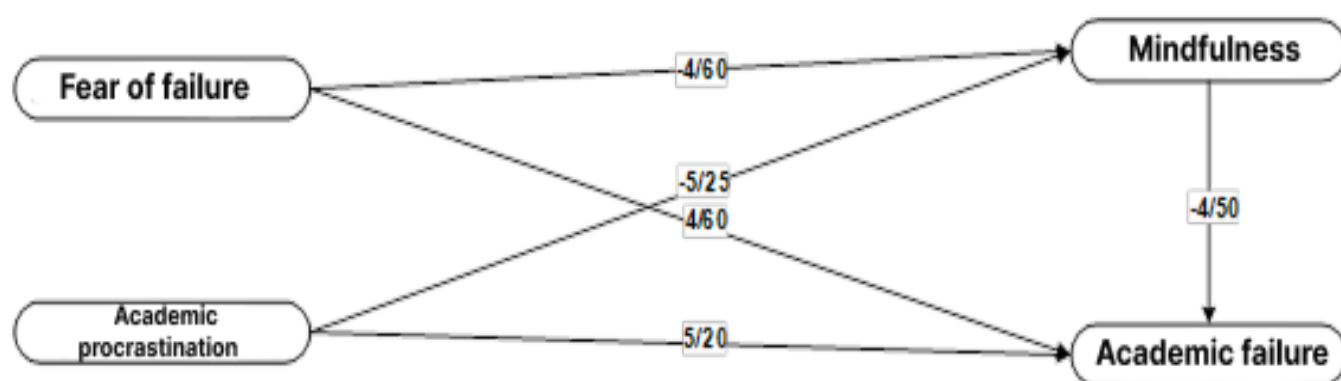*Conceptual model of the research in standardized factor loadings mode*

Figure 2

Conceptual model of the research in t-statistics mode

First, the structural model of the research is examined based on direct effects. The estimates of standardized direct effect coefficients are presented in Table 4.

Table 4

Estimates of Standardized Direct Effect Coefficients

Variables and Estimates	Standardized Parameter	Standard Error of Estimate	T-value
Fear of failure → Mindfulness	-0.33	1.00	*-4.60
Academic burnout → Mindfulness	-0.40	—	*-5.25
Fear of failure → Academic failure	0.35	1.00	*4.60
Academic burnout → Academic failure	0.40	—	*5.20
Mindfulness → Academic failure	-0.32	0.18	*-4.50

Based on the information in Table 4, the direct effects are examined. The direct effect of fear of failure on mindfulness was assessed. Results showed that fear of failure had a coefficient of -0.33 on mindfulness, and given the t-value (-4.60), it was significant at the 0.001 level. Therefore, regarding the hypothesis "Fear of failure affects mindfulness," there is a direct, negative, and significant effect.

The direct effect of academic burnout on mindfulness was also assessed. The coefficient was -0.40, and given the t-value (-5.25), it was significant at the 0.001 level. Therefore, regarding the hypothesis "Academic burnout affects mindfulness," there is a direct, negative, and significant effect.

On the other hand, the direct effect of fear of failure on academic failure was examined. Results showed that the coefficient was 0.35, and given the t-value (4.60), it was significant at the 0.001 level. Therefore, regarding the hypothesis "Fear of failure affects academic failure," there is a direct, positive, and significant effect.

Additionally, the direct effect of academic burnout on academic failure was examined. Results showed that the coefficient was 0.40, and given the t-value (5.20), it was significant at the 0.001 level. Therefore, regarding the hypothesis "Academic burnout affects academic failure," there is a direct, positive, and significant effect.

Moreover, the direct effect of mindfulness on academic failure was examined. Results showed that the coefficient was -0.32, and given the t-value (-4.50), it was significant at the 0.001 level. Therefore, regarding the hypothesis "Mindfulness affects academic failure," there is a direct, negative, and significant effect.

In the present study, due to the presence of a mediating variable in the model, indirect relationships between variables were tested using the Bootstrap Macro method. Table 5 presents the results of multiple mediation testing of indirect relationships for the whole sample using the bootstrap method.

Table 5

Multiple Mediation Test of Indirect Relationships for the Whole Sample Using the Bootstrap Method

Pathway	Data	Boot	Bias	Error	Lower Bound	Upper Bound
Indirect effect of fear of failure → Academic failure via mindfulness	0.0345	0.0334	0.0003	0.005	0.029	0.056
Indirect effect of academic burnout → Academic failure via mindfulness	0.0331	0.1270	0.0002	0.004	0.026	0.041

As shown in Table 5, for both the indirect effect of fear of failure on academic failure via mindfulness and the indirect effect of academic burnout on academic failure via mindfulness, the upper and lower bounds of the confidence intervals do not include zero. This means that these indirect pathways are significant for the whole sample. Thus, the results of the multiple mediation test indicate that the indirect relationships are significant.

Next, the indirect effects in this structural model are examined. Based on the information in Table 6, the acceptance or rejection of hypotheses related to indirect effects between variables is discussed.

Table 6

Estimates of Standardized Indirect Effect Coefficients

Variables and Estimates	Standardized Parameter
Indirect effect of fear of failure → Academic failure via mindfulness	0.1056
Indirect effect of academic burnout → Academic failure via mindfulness	0.1280

Based on Table 6, the indirect effect of fear of failure on academic failure via mindfulness was examined. Results showed that the coefficient of 0.1056 was significant at the 0.001 level, indicating a positive and significant indirect effect. Therefore, fear of failure has a positive and significant indirect effect on academic failure through mindfulness.

Similarly, the indirect effect of academic burnout on academic failure via mindfulness was examined. Results showed that the coefficient of 0.1280 was significant at the 0.001 level, indicating a positive and significant indirect effect. Therefore, academic burnout has a positive and significant indirect effect on academic failure through mindfulness.

One feature of path analysis is the measurement of total, direct, and indirect effects. Accordingly, Table 7 presents the total, direct, and indirect effects of independent and mediating variables on academic failure.

Table 7

Estimates of Direct, Indirect, and Total Effects (Based on Standardized Factor Loadings) of Independent and Mediating Variables on Academic Failure

Variables	Direct Effect	Indirect Effect	Total Effect
Fear of failure	*0.35	*0.1056	*0.4556
Academic burnout	*0.42	*0.1280	*0.5480
Mindfulness	*-0.32	—	*-0.32

As shown in Table 7, fear of failure and academic burnout have significant indirect effects on academic failure through the mediating variable mindfulness. The total effect of fear of failure is 0.4556, and the total effect of academic burnout is 0.5480, indicating that these variables, in total, explain academic failure both directly and indirectly through mindfulness. Therefore, fear of failure and academic burnout collectively have indirect effects on academic failure.

4. Discussion and Conclusion

The present study sought to develop and test an academic failure model in which fear of failure and academic burnout serve as independent predictors, mindfulness functions as a mediating variable, and academic failure acts as the dependent outcome among high school students in Ardabil. Structural equation modeling demonstrated that fear of failure exerted a significant direct negative effect on

mindfulness and a significant direct positive effect on academic failure. Academic burnout similarly showed a significant direct negative relationship with mindfulness and a significant direct positive relationship with academic failure. Furthermore, mindfulness was found to have a significant direct negative association with academic failure. In terms of indirect effects, both fear of failure and academic burnout influenced academic failure positively and significantly through mindfulness, indicating that lower levels of mindfulness partially explain the pathway between these adverse psychological states and failure outcomes. The model exhibited satisfactory goodness-of-fit indices, suggesting that the hypothesized relationships aligned well with the observed data.

The negative association between fear of failure and mindfulness found in this study is consistent with previous research indicating that high levels of performance-related anxiety and avoidance-oriented motivation are linked to reduced attentional control and present-moment awareness (Cashman et al., 2023; Nair & Sutar, 2023). Fear of failure often involves ruminative thought patterns, self-critical internal dialogue, and heightened sensitivity to potential negative evaluation (Geraghty, 2025; Sagar & Jowett, 2023), all of which interfere with the core mindfulness processes of nonjudgmental observation and acceptance (Gilbert et al., 2023). Studies have shown that students who experience high fear of failure may avoid challenging learning opportunities, disengage from academic tasks, and report lower emotional regulation capacities (Martin, 2025; Nakhla & Allan, 2025). The present findings support the view that mindfulness can be disrupted by such cognitive-emotional dynamics, thereby weakening a critical resource for coping with academic stress.

The observed negative relationship between academic burnout and mindfulness aligns with earlier work highlighting that burnout—characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment—is associated with diminished cognitive flexibility and increased automatic, maladaptive thought patterns (Hamaideh et al., 2020; Metz & Dreer, 2024). Burnout drains attentional resources and promotes disengagement from academic activities (Estrada Araoz et al., 2023; Serafica & Muria, 2023), which in turn may limit the ability to maintain awareness in the present moment (Tanveer & Kamran, 2023; Wang et al., 2024). Mindfulness-based interventions have been shown to counter these effects by promoting reflective rather than reactive responding, thereby improving resilience and reducing burnout

symptoms (Chirico et al., 2024; Wang et al., 2024). The present findings reinforce the mediational role of mindfulness, suggesting that enhancing it may help mitigate the negative impact of burnout on academic persistence and performance.

The positive direct effects of fear of failure and academic burnout on academic failure observed here are in line with established theoretical models of achievement motivation and self-regulation (Pellerone et al., 2020; Wang & Hall, 2020). Fear of failure can lead to self-handicapping behaviors, avoidance of evaluative situations, and maladaptive coping strategies such as procrastination (Nair & Sutar, 2023; Satici & Can, 2023). Over time, these patterns contribute to underachievement and eventual failure (Martin, 2025; Nakhla & Allan, 2025). Similarly, academic burnout erodes intrinsic motivation and reduces cognitive engagement, thereby impairing learning outcomes (Estrada Araoz et al., 2023; Hamaideh et al., 2020). The COVID-19 pandemic and its aftereffects have further exacerbated these processes by increasing academic demands, reducing opportunities for meaningful interaction, and heightening feelings of isolation (Gajderowicz et al., 2025; Timmons et al., 2022).

The finding that mindfulness has a significant negative relationship with academic failure is consistent with literature suggesting that mindfulness promotes adaptive self-regulation, reduces maladaptive rumination, and enhances engagement in learning tasks (Tanveer & Kamran, 2023; Wulandari & Rinaldi, 2024). Mindfulness skills enable students to monitor and adjust their emotional and cognitive responses to academic challenges, which can improve persistence and academic performance (Gilbert et al., 2023; Wang et al., 2024). Furthermore, mindfulness may foster psychological flexibility, allowing students to remain engaged with academic tasks even when facing difficulty (Chirico et al., 2024; Metz & Dreer, 2024). Given its buffering role, mindfulness emerges as an important intervention target for reducing the likelihood of academic failure among at-risk students.

The significant indirect effects of fear of failure and academic burnout on academic failure through mindfulness suggest that this construct operates as a partial mediator, consistent with models of emotional regulation in educational settings (Metz & Dreer, 2024; Wang et al., 2024). Students with higher fear of failure or greater burnout may experience reduced mindfulness, which in turn compromises their ability to manage stress and sustain effective learning behaviors (Martin, 2025; Nakhla & Allan,

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2025). Prior studies have documented similar mediation patterns, where mindfulness reduces the impact of academic stressors on negative educational outcomes (Tanveer & Kamran, 2023; Wulandari & Rinaldi, 2024). This mediational role underscores the importance of integrating mindfulness-enhancing strategies into educational programs, particularly for students exhibiting early signs of fear of failure or burnout.

The model's good fit indices further support the theoretical validity of linking fear of failure, academic burnout, and mindfulness to academic failure. Comparable structural models in the literature have demonstrated similar pathways between academic stress variables, emotional regulation constructs, and performance outcomes (Cashman et al., 2023; Satici & Can, 2023). Moreover, the current results align with broader research showing that both cognitive-behavioral and mindfulness-based interventions can reduce fear of failure, enhance resilience, and improve academic engagement (Sagar & Jowett, 2023; Wang et al., 2024). This convergence suggests that the relationships identified in this study are robust across different educational and cultural contexts.

The present findings also have implications for educational policy and practice. Teacher effectiveness, supportive school climates, and access to high-quality instructional materials have been shown to buffer students from the adverse effects of psychological stressors (Foster & Wilkerson, 2023; Leung & Lo, 2024; Pellerone et al., 2020). Socioeconomic disparities, however, may limit access to such resources, thereby increasing the risk of academic failure (Adaricheva et al., 2025; American Psychological, 2019). Furthermore, the increasing integration of AI and digital tools into education offers both opportunities and challenges (Ward et al., 2024). While these tools can facilitate personalized learning, they may also intensify stress if students lack digital literacy or self-regulation skills (Lindblom & Fälth, 2021; Ward et al., 2024). Addressing these systemic factors is crucial for creating an environment in which mindfulness and other protective factors can flourish.

5. Limitations & Suggestions

This study is subject to several limitations. First, the cross-sectional design precludes any definitive causal inferences about the relationships among fear of failure, academic burnout, mindfulness, and academic failure. Longitudinal studies are needed to establish temporal precedence and determine the stability of these effects over time. Second, all data were collected through self-report questionnaires, which are subject to social desirability bias and may not fully capture the complexity of the constructs examined. Third, the sample was limited to high school students in Ardabil, which may restrict the generalizability of the findings to other regions or educational levels. Fourth, the measurement of academic failure relied partly on self-reported experiences and risk indicators rather than objective academic records, potentially introducing measurement error. Finally, although the study accounted for key psychological variables, other relevant factors such as personality traits, family support, and teacher-student relationships were not included in the model.

Future research should employ longitudinal or experimental designs to establish causal relationships between fear of failure, academic burnout, mindfulness, and academic failure. Including objective performance metrics, such as grade point averages or standardized test scores, would strengthen the validity of outcome measures. Studies could also explore the moderating roles of demographic variables, socioeconomic status, and cultural context in shaping these relationships. Expanding the model to include other protective factors, such as resilience, social support, or growth mindset, could provide a more comprehensive understanding of the mechanisms that buffer against academic failure. Furthermore, investigating the efficacy of specific mindfulness-based interventions in reducing fear of failure and burnout in diverse educational settings would be a valuable extension of this work.

From a practical perspective, educators and school psychologists should consider integrating mindfulness training into academic support programs, especially for students identified as being at risk of failure. Early screening for fear of failure and burnout symptoms can enable timely intervention, preventing escalation into more severe academic difficulties. Teacher professional development should include strategies for fostering supportive classroom environments that reduce evaluative pressure and promote intrinsic motivation. Schools should also ensure that students have access to high-quality instructional resources and opportunities for social-emotional learning. Finally, policy initiatives aimed at reducing educational inequalities could enhance the overall effectiveness of such interventions by ensuring that all students have the necessary resources to benefit from mindfulness-based and other preventive programs.

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