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Presentation and Testing the Causal Model of Achievement Motivation Based on Academic Meaning with the Mediating Role of Academic Self-Concept in University Students

Elahe Morshedzadeh[1], Fatemeh Esfandiari BaghBemidi[2]✉

1. Department of Educational Psychology, BL.C., Islamic Azad University, Bandar Lengeh, Iran
2. Department of Educational Psychology, BL.C., Islamic Azad University, Bandar Lengeh, Iran, fateme.esfandiyari@iau.ac.ir

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ABSTRACT

Objective: Academic achievement motivation is considered one of the most fundamental psychological constructs in explaining the success and persistence of students in higher education. The present study aimed to test a causal model of achievement motivation based on academic meaning with the mediating role of academic self-concept in university students.

Methods: This study was a descriptive-correlational design using a Structural Equation Modeling (SEM) approach. The statistical population consisted of all undergraduate and graduate students at the Islamic Azad University, Bandar Lengeh Branch, during the 2025-2026 academic year. A sample of 350 students was selected through stratified random sampling based on gender. Data were collected using three standardized questionnaires: the Hermans Achievement Motivation Questionnaire (1970), the Chen and Yi-Hsien Academic Self-Concept Questionnaire (2004), and the Henderson-King and Smith Academic Meaning Questionnaire (2006). Data analysis was performed using SPSS-24 and AMOS software at both descriptive and inferential levels.

Results: The results indicated that the proposed model had a good fit, and all direct paths in the model were significant. The direct effects of academic meaning on achievement motivation (β=0.48, P<0.001), academic self-concept on achievement motivation (β=0.65, P<0.001), and academic meaning on academic self-concept (β=0.76, P<0.001) were all significant. The indirect effect of academic meaning on achievement motivation through academic self-concept was 0.49 (P<0.001).

Conclusions: Academic self-concept, as a mediating construct, elucidates the mechanism through which students' perception of the value and purposefulness of education leads to an increase in achievement motivation.

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Introduction

The university period, as one of the most sensitive and decisive stages of life, is accompanied by a multitude of academic, career, social, and psychological challenges (Paiva et al., 2025). During this period, students, as the intellectual and human capital of society, play a key role in scientific, cultural, and economic development, and higher education systems, aiming to train specialized and efficient human resources, consider universities as the primary scientific institutions for cultivating knowledgeable and capable individuals (Aflaksir et al., 2026). In such a context, academic achievement motivation, as one of the most fundamental psychological constructs, has consistently been a focus of attention for researchers, educational psychologists, and educational policymakers (Shurovi et al., 2024; Zhou & Ahmad, 2025). Achievement motivation, defined as an individual's inclination to attain excellence, success, and better performance relative to internal or external standards (Mirzaeifar et al., 2025), plays a decisive role in directing effort, perseverance, selection of challenging tasks, and ultimately, the academic performance of students (Feng et al., 2024; Lin et al., 2025). Despite the importance of achievement motivation, research evidence indicates that this construct is a multifactorial phenomenon influenced by a set of internal factors (cognitive, emotional, and personality) and external factors (environmental, social, and educational) (Hamm & Yeh, 2024; Uji & Kawaguchi, 2021).

Among these, one variable that has garnered increasing attention in recent years is academic meaning. Academic meaning refers to students' perception and mental interpretation of the value, purposefulness, and importance of educational activities in their personal lives and future career paths (Henderson-King & Smith, 2006; Kapur, 2023). When students perceive education as meaningful, aligned with personal growth goals, and as a tool for achieving independence and career success, this perception can act as a powerful motivational source, driving them toward sustained effort, active engagement, and orientation toward success (Khenia et al., 2021; Sadri et al., 2021). Numerous studies have shown that academic meaning has a positive and significant relationship with variables such as academic performance, life satisfaction, academic resilience, and psychological well-being (Onini et al., 2022; Jorjani & Rajani, 2023; Hosseini & Abbasi, 2020). However, the mediating mechanisms explaining this relationship still require deeper investigation. One of the most important mediating mechanisms that can explain the relationship between academic meaning and achievement motivation is academic self-concept. Academic self-

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concept is defined as an individual's perception and evaluation of their own academic abilities, competencies, and capabilities in comparison to others (Bustani et al., 2025; García-Martínez et al., 2022). This construct, rooted in social-cognitive theories (Bandura, 1997; Pekrun, 2006), plays a pivotal role in explaining individual differences in academic performance, motivation, and persistence (Lohbeck & Moschner, 2022; Wang & Yu, 2023). Students with a positive academic self-concept perceive themselves as capable, efficient, and competent in facing educational challenges; these beliefs, in turn, lead to increased effort, selection of more ambitious goals, persistence in the face of failure, and ultimately, enhanced academic performance (Gholizadeh Ghaleh Aziz et al., 2025; Rostami & Noormohammadi, 2025). Domestic research has also clearly confirmed the predictive role of academic self-concept in relation to achievement motivation (Ajli & Pirzad, 2021; Mahnas, 2025; Hajizadeh et al., 2025) as well as its relationship with academic meaning (Sattari Baboukani & Mohammadi, 2023). Despite the confirmation of the independent role of these three constructs in the research literature, there is a significant theoretical and empirical gap regarding the simultaneous examination and interaction of these variables within a comprehensive causal model, particularly in the context of Iranian higher education and among students at less-studied universities. A review of the literature reveals that most previous studies have examined bivariate relationships among these variables, and rarely has a study tested the mediating role of academic self-concept in the relationship between academic meaning and achievement motivation within a student population. This research gap, especially given that Iran's higher education system faces challenges such as decreased motivation, reduced academic engagement, and increased academic burnout among students (Shurovi et al., 2024; Paiva et al., 2025), underscores the necessity of conducting research aimed at identifying effective mechanisms influencing achievement motivation. On the other hand, the Islamic Azad University, Bandar Lengeh Branch, as one of the higher education centers in the southern region of the country, with a culturally, economically, and academically diverse student population, provides a unique context for examining these relationships. However, no comprehensive study has yet investigated these constructs among the students of this university. Therefore, the present study is important and necessary from several perspectives:

From a theoretical perspective, by testing a structural model based on established theoretical frameworks (Self-Determination Theory, Social-Cognitive Theory, and Control-Value Theory),

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this research can contribute to the richness of the educational and cognitive psychology literature in the field of achievement motivation and deepen our understanding of the mediating mechanisms between cognitive-motivational variables. From a practical perspective, the results of this study can provide a scientific basis for designing and implementing targeted educational and counseling interventions. Identifying the mediating role of academic self-concept enables specialists and stakeholders in the higher education system to design programs that simultaneously strengthen academic meaning (through career counseling, goal-setting, and academic meaning-making) and academic self-concept (through constructive feedback, empowerment, and enhancing self-efficacy) to more effectively promote achievement motivation and improve the quality of students' academic experience. Furthermore, the findings of this research can be useful for academic counselors, psychologists working in university counseling centers, and educational policymakers in developing programs to improve students' mental health and academic performance. Based on the theoretical foundations and research background, the conceptual model of this study was developed, in which academic meaning was considered as an exogenous variable, academic self-concept as a mediating (intervening) variable, and achievement motivation as an endogenous variable. This model was formulated to answer the fundamental question of whether academic self-concept plays a mediating role in the relationship between academic meaning and students' achievement motivation.

Material and Methods

Research Design: The present study, in terms of its objective, is applied research, and in terms of methodology, it falls under descriptive-correlational studies, designed using a Structural Equation Modeling (SEM) approach.

Statistical Population: The statistical population of this study comprised all undergraduate and graduate students at the Islamic Azad University, Bandar Lengeh Branch, during the 2025-2026 academic year.

Sample size: Jackson (2003) suggests that for each parameter in the model, 10 to 20 observations should be considered to provide the necessary statistical power for testing the model. Given the structure of the conceptual model of this study and the presence of 35 free parameters (including structural relationships, factor loadings, and error variances), and considering the 1-to-10 ratio,

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which is considered a desirable minimum ratio in most SEM studies, a sample size of 350 was determined.

Sampling method: The sampling method in this study was stratified random sampling. Gender was considered as the stratifying factor, resulting in two strata (male and female) being incorporated into the sampling process. From each stratum, 175 individuals (totaling 350) were randomly selected (using a table of random numbers from the list of students available in the university's educational system).

Data Collection Instruments: In this study, three standardized questionnaires were used to collect data, which are described in detail below:

1. Hermans Achievement Motivation Questionnaire (1970): This questionnaire was designed and developed by Hermans (1970) based on the theoretical foundations of "need for achievement" by McClelland and Atkinson, and by utilizing relevant empirical findings. The final version of this instrument consists of 29 items selected after statistical analyses and confirming high and significant correlations with the total score. The items of this questionnaire are formulated as incomplete sentences, and for each sentence, four options (from "completely agree" to "completely disagree") are provided, from which the respondent must choose the option that best matches their current state. The approximate time for administering this test is estimated to be 15 minutes. Items 1, 4, 9, 14, 15, 16, 20, 21, 27, and 28 are scored in reverse (from 1 to 4). Other items (including 2, 3, 5, 6, 7, 8, 10, 11, 12, 13, 17, 18, 19, 22, 23, 24, 25, 26, and 29) are scored directly (from 4 to 1). Thus, the total score range of this scale varies from 29 to 116, with higher scores indicating a higher level of achievement motivation in the respondent. Reliability and Validity: The reliability and validity of this instrument have been confirmed in numerous studies. Hermans (1970) reported an internal consistency reliability coefficient (Cronbach's alpha) of 0.84 and a test-retest reliability coefficient of 0.83 (Shahmari Sooha, 2007). In the Iranian research context, Hooman and Asgari (2000), during the standardization process of this test on a sample of 1073 students, estimated the Cronbach's alpha coefficient to be 0.803. Moreover, in later studies such as the one by Tahmasebi et al. (2018), a Cronbach's alpha of 0.72 was reported. In the present study, the Cronbach's alpha coefficient for this questionnaire was found to be 0.79, indicating acceptable reliability.

2. Chen and Yi-Hsien Academic Self-Concept Questionnaire (2004): The academic self-concept questionnaire was first developed by Chen and Yi-Hsien (2004) after being administered to 1,612

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elementary school students in Taiwan. In Iran, this questionnaire was standardized by Afsharizadeh, Karshki, and Nasirian (2013) on elementary school students. The initial version of this instrument included 15 items designed to measure various dimensions of self-concept. During the validation process in Iran, based on the results of psychometric analyses, one item was omitted (due to low factor loading or weak correlation with the total score), and the final version of the questionnaire with 14 items was confirmed. This questionnaire has 3 components: General Self-Concept (5 items; measuring the individual's overall perception of their abilities), Academic Self-Concept (5 items; measuring the individual's perception of their competence in the school/university environment), and Non-Academic Self-Concept (4 items; measuring the individual's perception of their abilities in non-academic areas such as social relationships and life skills). Scoring: Responses are scored on a five-point Likert scale (from 4 = "completely agree" to 0 = "completely have no opinion"). The total score range is between 0 and 56, with higher scores indicating a more positive academic self-concept. Validity and Reliability: To assess face and content validity, opinions of professors and specialists in educational psychology were obtained, which confirmed the adequacy and appropriateness of the items for the construct being measured. Furthermore, the construct validity of the instrument was examined through two methods: internal correlation of each factor with the total score and exploratory factor analysis. The findings of the factor analysis, consistent with the research conducted in the original population, led to the extraction of three main factors that together could explain about 43% of the total variance, indicating an acceptable factor structure. Cronbach's alpha coefficient was used to estimate the reliability (internal consistency). The Cronbach's alpha for the total academic self-concept score was reported as 0.78. Also, the alpha coefficients for the subscales were 0.48 for general self-concept, 0.72 for academic self-concept, and 0.47 for non-academic self-concept (Afsharizadeh, Karshki, & Nasirian, 2013). In the present study, the Cronbach's alpha coefficient for this questionnaire was 0.82, indicating very good reliability.

3. Henderson-King and Smith Academic Meaning Questionnaire (2006): The Academic Meaning Scale was developed by Henderson-King and Smith (2006) to assess students' perception and interpretation of the meaning, value, and purposefulness of education in personal life and future career paths. This instrument includes 86 items and 10 components, which are: Career (preparation for entering the job market; 9 items), Independence (gaining personal and financial independence;

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9 items), Future (envisioning a perspective and roadmap for life; 9 items), Learning (acquiring new knowledge and skills; 8 items), Self (self-knowledge and talent development; 9 items), Next Step (natural continuation of the educational path; 8 items), Social (interactions and friendships; 9 items), World Around (ability to influence the environment; 8 items), Stress (education as a source of stress and pressure; 9 items), and Escape (education as a refuge from life pressures; 8 items). Scoring: Responses are scored on a five-point Likert scale (from 1 = "completely disagree" to 5 = "completely agree"). The total score range is between 86 and 430, with higher scores indicating a more positive perception of the meaning of education. Validity and Reliability: Reliability coefficients (Cronbach's alpha) calculated by the developers for the components ranged from 0.77 to 0.91. The highest reliability coefficients belonged to the Learning and Self-Development (0.90) and Social Relationships (0.91) components, indicating good internal consistency. Overall, the reported Cronbach's alpha coefficients indicated the appropriate reliability and high trustworthiness of the scale in measuring academic meaning. In the present study, the Cronbach's alpha coefficient for this questionnaire was 0.78, indicating acceptable reliability.

Research Procedure: To conduct this study, necessary coordination was first made with the officials of the Islamic Azad University, Bandar Lengeh Branch (including the Vice President for Education, the Vice President for Research and Technology, and the faculty heads), and administrative approvals were obtained. In the first stage, information regarding undergraduate and graduate students in the 2025-2026 academic year was reviewed to precisely identify the target population. Then, with the cooperation of educational officials and using the university's communication platforms (including the virtual education system, student Telegram and WhatsApp groups, and bulletin boards), access to students was facilitated. After introducing the research objectives, explaining the importance of participation in the study, and emphasizing the confidentiality of information and voluntary participation, the link to the research questionnaires (designed on the Google Forms platform) was provided online to the students and distributed through student virtual groups and university communication networks to enable broader access to the target population. At the beginning of the questionnaire, comprehensive explanations regarding the research purpose, how to complete the questionnaire, and a guarantee of information confidentiality were provided, and completing the questionnaire was considered as informed consent from participants. The approximate response time for the entire questionnaire was about

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30-40 minutes. After the data collection period (2 months), the received responses were reviewed, and incomplete questionnaires or those with invalid response patterns (e.g., repetitive responses to all items or leaving more than 5% of items blank) were excluded. Finally, data from 350 complete questionnaires, after refinement and coding, were prepared for statistical analysis.

Data Analysis Method: In this study, two levels of descriptive and inferential statistics were used to organize and explain the collected data. In the descriptive statistics section, indicators such as frequency, percentage, mean, and standard deviation were used, and the results were presented in descriptive tables and figures to provide a clear picture of the demographic characteristics of the sample and the distribution of data for the main research variables. Furthermore, to examine the prerequisites for performing SEM, three main assumptions were evaluated: (1) normality of data distribution using the Shapiro-Wilk test; (2) absence of outliers using Mahalanobis distance; and (3) linear correlation between variables using the Pearson correlation matrix. In the inferential statistics section, to test the research hypotheses and examine causal and structural relationships among latent and observed variables, Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach was used, utilizing AMOS software version 24. The analysis was conducted in two stages: (1) evaluation of the measurement model (confirmatory factor analysis) to assess the fit of indicators (items/components) with their respective constructs, and (2) evaluation of the structural model to test direct and indirect relationships among variables. To examine the significance of indirect effects (mediating role), the Bootstrap method with 5,000 resamples and a 95% confidence level was employed. All statistical analyses were performed using SPSS version 24 for preliminary analyses and AMOS version 24 for model fit and structural equation model testing.

Ethical Considerations: In this study, ethical principles of research were fully observed. Prior to data collection, informed consent was obtained from participants, and they voluntarily participated in the study with knowledge of its objectives.

Results

Table 1 reports the descriptive indices for the research variables.

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Table 1. Descriptive Indices of Research Variables

Variable	Mean	Standard Deviation	Skewness	Kurtosis
First Part Questions (subscale)	41.68	5.47	1.77	-0.25
Second Part Questions (subscale)	42.59	4.36	0.34	0.48
Achievement Motivation (scale)	84.27	8.95	1.09	1.06
General (subscale)	13.47	2.12	0.87	0.92
Academic (subscale)	22.25	4.56	0.33	0.47
Non-Academic (subscale)	6.47	1.33	0.68	-0.28
Academic Self-Concept (scale)	42.19	5.75	-1.14	-0.58
Career (subscale)	42.95	5.48	1.47	0.25
Independence (subscale)	18.63	3.68	-0.62	0.65
Future (subscale)	11.65	2.25	-0.33	0.48
Learning (subscale)	39.48	5.45	1.02	-0.68
Self (subscale)	41.38	4.47	1.47	-1.33
Next Step (subscale)	10.89	2.96	-1.55	0.44
Social (subscale)	47.68	5.35	0.86	1.44
World Around (subscale)	30.57	4.78	-0.39	0.78
Stress (subscale)	39.28	4.68	-0.78	-0.68
Escape (subscale)	40.57	5.36	1.08	1.68
Academic Meaning (scale)	323.08	29.68	2.01	-1.52

The results presented in the above table are only related to the statistical sample of the study and do not meet the necessary conditions for generalization to the statistical population. For such generalization, it is necessary to perform inferential tests with a conventional error level on the data.

To examine the prerequisites for parametric analyses and ensure the applicability of statistical tests in this study, the normality of data distribution was first evaluated. For this purpose, the Shapiro-Wilk test, a standard and powerful test for assessing sample distribution deviation from normality, was used. The significance level for all research variables was greater than the predetermined error level (0.05). Since the null hypothesis (H_0) in this test indicates no significant difference between the sample data distribution and the normal distribution, and given that this hypothesis was not rejected, it can be inferred that the collected data have normal distribution characteristics. Accordingly, the normality assumption of data is confirmed for all studied variables, and parametric statistical analyses can be performed in subsequent stages.

Another assumption for using SEM is the examination and removal of outliers. This was accomplished in the present analysis using Mahalanobis distances. The Mahalanobis distance was calculated for all data and compared with the chi-square index. In this study, the confidence level was 95% and the degrees of freedom were 2 (based on the variables entered into the Mahalanobis distance, n-1). Using the degrees of freedom and the mentioned confidence level in the chi-square

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table, a value of 5.991 was obtained. The highest Mahalanobis distance obtained in the present analysis was 5.906. Comparing these two values indicated that no data among the Mahalanobis distances exceeded the obtained chi-square value, and consequently, no outlier exists among the respondents' answers. Thus, this assumption is confirmed.

The correlation values among the variables in this study were in a desirable range (between 0.30 and 0.90), and the correlations between variables were estimated to be relatively strong. Considering the correlation values and their desirable significance levels, this assumption is confirmed.

To calculate the total effects in the model, the direct and indirect effects of the variables involved in a path were summed to provide a clearer view of the paths in the model. This is reported in Table 2.

Table 2. Standardized Values of Direct, Indirect, and Total Effects of Research Variables

Predictor Variable	Criterion Variable	Direct Effect	Indirect Effect	Total Effect
Academic Meaning	Achievement Motivation	0.48	0.49	0.97
Academic Self-Concept	Achievement Motivation	0.65	-	0.65
Academic Meaning	Academic Self-Concept	0.76	-	0.76

As observed in Table 2, academic meaning, as a strong predictor, predicts achievement motivation both directly, indirectly (through academic self-concept), and in total. Based on the results of this section, it was determined that all effects, including direct, indirect, and total, are at a desirable significance level.

To confirm these findings and evaluate the fit of the final research model in the statistical population, model fit indices were calculated in Amos software. Table 3 presents the model fit indices along with the optimal values for each index based on Kline's (2016) criteria.

Table 3. Model Fit Indices

Index	X2/df	GFI	AGFI	TLI	CFI	RMSEA	PCLOSE
Obtained Values	2.44	0.93	0.92	0.94	0.94	0.045	0.33
Optimal Values	<3	>0.90	>0.90	>0.90	>0.90	<0.08	>0.05

According to the results in the above table, the chi-square to degrees of freedom ratio was 2.44. The Goodness of Fit Index (GFI) and Adjusted Goodness of Fit Index (AGFI), which indicate the amount of variance and covariance explained by the model, were 0.93 and 0.92, respectively. The

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Comparative Fit Index (CFI), which compares the target model with the independent model, was 0.94. The Tucker-Lewis Index (TLI) value, as a non-normed fit index, was estimated at 0.94. The Root Mean Square Error of Approximation (RMSEA) and its associated P-value for close fit (PCLOSE) were 0.045 and 0.33, respectively. All model fit indices were at an acceptable level, indicating that the model had a good fit.

Considering the results of the sub-hypotheses and based on the findings of the final statistical section of this research, the main hypothesis of the study is confirmed.

Discussion

The primary objective of the present study was to test a causal model of achievement motivation based on academic meaning with the mediating role of academic self-concept in university students. The findings indicated that the proposed model had a good fit, and all direct and indirect hypotheses were confirmed. In the following, each finding is explained within the framework of existing theories and previous research. Explanation of the Direct Relationship between Academic Meaning and Achievement Motivation: The findings indicated that academic meaning directly and positively predicted achievement motivation ($\beta = 0.48$). This result is consistent with previous studies (Jorjani & Rajani, 2023; Khenia et al., 2021; Onini et al., 2022).

From the perspective of Self-Determination Theory (Deci & Ryan, 1985), when students perceive education as having intrinsic value, being purposeful, and aligned with personal growth goals (such as self-actualization, career independence, and acquiring professional identity), the psychological need for meaning is satisfied, leading to increased intrinsic motivation. In other words, academic meaning acts as a "personal goal-setting" mechanism, transforming abstract goals into tangible behavioral orientations and providing the necessary psychological energy for achievement (Zhou & Ahmad, 2025). In contrast, students who view education merely as an external obligation or devoid of meaning tend to show reduced effort, lack of motivation, and performance decline (Shurovi et al., 2024).

Explanation of the Direct Relationship between Academic Self-Concept and Achievement Motivation: The findings demonstrated that academic self-concept was the strongest direct predictor of achievement motivation ($\beta = 0.65$). This finding is consistent with numerous studies (Ajli & Pirzad, 2021; Mahnas, 2025; Hajizadeh et al., 2025; Gholizadeh Ghaleh Aziz et al., 2025;

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Lohbeck & Moschner, 2022; Wang & Yu, 2023). According to Bandura's Social-Cognitive Theory (Bandura, 1997), academic self-concept, as a core belief about one's competence, affects four main components of motivation: (1) choice (selecting more challenging tasks), (2) effort (expending more energy), (3) persistence (continuing in the face of obstacles), and (4) attitude (experiencing positive emotions like hope and pride). Additionally, Pekrun's Control-Value Theory (Pekrun, 2006) emphasizes that a positive self-concept strengthens positive academic emotions and reduces negative emotions (anxiety, hopelessness) by increasing task value and perceived control, which in turn enhances achievement motivation. Therefore, academic self-concept is not merely a cognitive reflection but a dynamic driving force that determines the quality of a student's interaction with the educational environment.

Explanation of the Direct Relationship between Academic Meaning and Academic Self-Concept: Academic meaning was able to explain 76% of the variance in academic self-concept ($\beta = 0.76$), indicating a very strong and significant relationship. This finding is consistent with the research by Sattari Baboukani and Mohammadi (2023). To explain this strong relationship, the self-perception theory (Shavelson et al., 1976) and the internalization of feedback model can be utilized. When students perceive education as meaningful and purposeful, they participate more actively in educational activities, receive more positive feedback from professors and peers, and experience more academic successes. These successful experiences gradually transform into internal beliefs about abilities and form or strengthen academic self-concept (Sticca et al., 2023). In other words, academic meaning is the mechanism through which the "value of education" is converted into "belief in oneself." This finding is also compatible with the research by Fleischmann et al. (2023), which showed that social comparisons in educational settings can affect self-concept: students who do not find meaning in their education may develop a negative perception of their abilities compared to others, which weakens their self-concept.

Explanation of the Mediating Role of Academic Self-Concept: The most important finding of this study was the mediating role of academic self-concept in the relationship between academic meaning and achievement motivation (indirect effect $\beta = 0.49$). This means that academic meaning, in addition to its direct effect, contributes to enhancing achievement motivation by strengthening academic self-concept. This finding is consistent with the research by Mahnas (2025), who identified academic self-concept as a mediator between school emotional climate and

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achievement motivation, and it takes a step further by generalizing this mechanism to the higher education context. Theoretically, this finding can be analyzed within the framework of the three-dimensional model of motivation (Schunk & Pintrich, 2012): academic meaning (value and goal-orientation dimension), by influencing academic self-concept (competence beliefs dimension), shapes achievement motivation (behavioral-effort dimension). More precisely, academic meaning acts as a "distal variable," exerting its effect on achievement motivation through academic self-concept as a "proximal variable" (Pekrun, 2006). These findings are also congruent with Self-Determination Theory (Deci & Ryan, 2000), as satisfying the psychological need for competence (which overlaps with a positive self-concept) is a primary prerequisite for internalizing extrinsic motivation and transforming it into stable intrinsic motivation. Therefore, students who find education meaningful are not only directly motivated but also, by reconstructing their mental image of their abilities, internalize a stable source of motivation that endures over time and in the face of challenges (Hamm & Yeh, 2024). Strong Argument for Final Conclusion and Practical Implications: Based on the findings of this study, it can be argued that academic meaning, as a higher-order cognitive-motivational construct, leads to increased achievement motivation by strengthening academic self-concept (competence beliefs) as a social-cognitive mediating mechanism. Simply put, knowing that "education is important" (meaning) is not enough; the student must also "perceive themselves as capable" (self-concept) in order to "move toward success" (achievement motivation). This cycle is a self-reinforcing system: successes resulting from high motivation reinforce self-concept and reaffirm the meaning of education (Sticca et al., 2023).

Practical Implications of this research include: 1. Designing Meaning-Based Educational Interventions: Academic counselors and professors can help students understand the connection between university courses and their career goals, personal development, and social roles by holding academic meaning-making workshops. This can be done through techniques such as personal goal-setting, re-evaluating academic values, and connecting with successful role models. 2. Strengthening Academic Self-Concept through Positive Feedback: Professors and educational systems should provide constructive, specific, and empowering feedback to students to strengthen their belief in their abilities. Furthermore, providing success experiences (through appropriately challenging assignments) can significantly enhance academic self-concept. 3. Comprehensive

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Counseling Programs: University counseling centers can, by designing integrated programs that focus on both promoting academic meaning and strengthening academic self-concept, more effectively help reduce demotivation and academic burnout among students.

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 ethics committee of Islamic Azad University.

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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