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Mediating Role of Goal Orientation in the Relationship between Attribution Style and Academic Self-Handicapping of Male and Female Students in Shahed Schools of Yasouj

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ABSTRACT

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Objective: The phenomenon of academic self-handicapping serves as a prevalent psychological challenge among individuals engaged in educational frameworks, thus attracting scholarly attention. The primary objective of this study was to elucidate the mediating role of goal orientation in the relationship between attributional style and academic self-handicapping among high school students.

Methods: The research methodology employed in this investigation was of a descriptive correlational nature, utilizing structural equation modeling. The statistical population encompassed all male and female students enrolled in Shahed high schools located in Yasouj city during the year 2022, with the sample comprising 259 students who were selected through a random sampling technique. The instruments utilized for data collection included Schwinger and Stiensmeier-Pelster's Academic Self-Handicapping Scale, the Attributional Style Questionnaire developed by Patterson et al. and Elliot and McGregor's Achievement Goal Orientation Questionnaire. To evaluate the proposed model, structural equation modeling techniques were implemented.

Results: The findings indicated that attributional styles serve as significant positive predictor of achievement goal orientation ($\beta=+0.19$, $P<0.001$). Additionally, achievement goal orientation was found to be a significant negative predictor of academic self-handicapping ($\beta=-0.50$, $P<0.001$). The association between attributional style and academic self-handicapping was also established as negative and significant ($\beta=-0.30$, $P<0.001$). An examination of the mediating effect revealed that achievement goal orientation plays a significant mediating role between attributional style and academic self-handicapping.

Conclusions: Overall, the research findings substantiate the mediating role of achievement goal orientation in the linkage between attributional style and academic self-handicapping, thereby providing valuable insights for school counselors in the formulation of interventions aimed at mitigating academic self-handicapping behaviors among learners.

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Introduction

Today, psychologists assume a pivotal function in the analysis and enhancement of psychological behaviors and issues; concurrently, one of the most significant practical contexts within psychology pertains to the realm of education ([Zarshenas et al., 2019](#)). Conversely, a primary objective of educational systems is not only to attain academic accomplishments but also to preserve and enhance the psychological well-being of students in both school and university settings. Consequently, it is imperative to identify the challenges and variables associated with these dimensions ([Shoshani & Steinmetz, 2014](#)). Individuals encounter numerous tasks and objectives that vary in complexity and reflect their probabilities of success or failure, along with their underlying beliefs. Previous experiences often play a critical role in shaping the motivation surrounding tasks, future aspirations, and an individual's inclination to undertake new challenges, a phenomenon referred to as self-handicapping ([Atoum et al., 2019](#)). Self-handicapping behaviors serve as impediments to individuals' achievements and are characterized by rationalizations for their failures. Additionally, scholars have noted that self-handicapping acts as a mechanism that enables individuals to rationalize failure when faced with uncertainty regarding future success ([Urdan & Midgley, 2001](#)). Furthermore, any behavior that permits individuals to attribute their failures in fulfilling responsibilities to external factors, while crediting their successes to internal attributes, falls within this framework. In recent decades, the construct of academic self-handicapping has gained prominence as a prevalent psychological phenomenon among learners within educational systems, capturing the interest of educational psychology researchers ([Midgley & Urdan, 2001](#); [Schwinger et al., 2014](#)). Self-handicapping, as a psychological defense mechanism aimed at preserving one's self-esteem, operates on the principle of general exclusion ([Schwinger & Stiensmeier-Pelster, 2011](#)).

To mitigate the threat posed by evaluative judgments regarding oneself, individuals often ascribe their failures to a lack of effort. Conversely, in instances of unexpected success, individuals tend to utilize internal and stable attributions to project their capabilities ([Rickert et al., 2014](#)). Indeed, the primary focus of researchers has centered on strategies that facilitate student autonomy in learning, enabling them to manage and direct their own educational experiences; in other words, students ought to assume accountability for their learning and regulate their behaviors to minimize reliance on educators ([Wang et al., 2010](#)). Research indicates that attributional styles correlate

positively with cognitive and metacognitive outcomes, academic progress, and enhanced motivation ([Perry et al., 2001](#)), thereby serving as robust predictors of student performance, academic advancement, and self-esteem ([Kazemi et al., 2018](#)). Among the influential theories present in contemporary research literature, situated within the cognitive-social framework, is the theory of achievement goals ([Zusho & Clayton, 2011](#)).

In contemporary scholarly discourse, goal orientation has emerged as a salient topic of inquiry among researchers specializing in social, developmental, and educational psychology ([Ranellucci et al., 2015](#)). Consequently, the nature of students' academic objectives constitutes a pivotal variable within motivational research in the realm of education ([Mahasneh & Al-Alwan, 2011](#)). The theoretical framework surrounding achievement goals posits that the objectives learners adopt to engage in specific academic endeavors (i.e., their achievement goals) serve as a critical precursor to the processes and outcomes associated with their academic progression ([Elliot & McGregor, 2001](#)). Given the unique circumstances faced by students who are witnesses or exhibit self-sacrificing behavior (such as the absence of a paternal figure, the disability of a veteran father, or the presence of mental health issues in the father), it is plausible that these individuals may encounter psychological obstacles and experience a decline in academic performance or engage in academic self-handicapping. In light of this, the present study endeavors to explore whether goal orientation serves a mediating function in the relationship between attributional style and academic self-handicapping.

Material and Methods

In the context of data collection, the employed research methodology was a descriptive correlational design. Indeed, correlational research encompasses all inquiries wherein the aim is to uncover or ascertain the relationships among diverse variables through the utilization of the correlation coefficient. The statistical population of the research includes all male and female students of Shahed schools in Yasouj, who studied in the academic year of 2022. As per the reports from educational officials, the statistical community comprises a total of 640 students. The sampling technique utilized, based on the students' gender, was multi-stage cluster random sampling. Consequently, an initial step involved the random selection of one district (specifically district three) from the pool of Shahed schools across the four educational districts of Yasouj city;

in the subsequent phase, two secondary schools were randomly chosen from among the schools in the district (which included three boys' schools and three girls' schools), and similarly, two secondary schools were randomly selected from the boys' schools within the same district, alongside two secondary schools from the girls' schools. Following this, three classes were randomly chosen from each selected school, and ultimately, all students present in those selected classes underwent assessment. In accordance with the prudent ratio of at least 10 observations per independent variable, a sample of 259 individuals (composed of 130 boys and 129 girls) was derived through the multi-stage cluster random sampling methodology.

Instruments

Achievement Goals Questionnaire: [McGregor and Elliot \(2002\)](#) designed the achievement goals questionnaire with the aim of determining the type of students' achievement goals. This questionnaire has 12 questions and its purpose is to examine the orientation of academic achievement goals from different dimensions (approach-mastery goals, avoidance-mastery goals, approach-performance goals, avoidance-performance goals). Its response range is a 5-point Likert scale. The analysis of this questionnaire can be used both through the analysis based on the components of the questionnaire and the analysis method based on the score obtained. To get the total score of the questionnaire, the total scores of all the questions are added together. Accordingly, the minimum possible score will be 12 and the maximum will be 60. The score is between 12 and 20 (the level of people's goal orientation is low). A score between 20 and 40 (the level of people's development goal orientation is moderate) and a score higher than 40 (the level of people's development goal orientation is high). In [Pourgholam et al. \(2015\)](#) study, the construct validity of this questionnaire was tested using confirmatory factor analysis in LISREL software version 8.8 and the matching fit indices (1.00), incremental fit index (1.00) and The root mean square error of approximation (0.00) was reported at the desired level. Also, in his research, the results related to the Cronbach's alpha coefficient for the achievement goal orientation questionnaire were equal to 0.85. In this research, the results related to Cronbach's alpha coefficient calculated for the achievement goals questionnaire is equal to 0.89.

Academic Self-Handicapping Scale: Academic Self - Handicapping Scale (ASHS) ([Schwinger & Stiensmeier-Pelster, 2011](#)) is a single-factor questionnaire with 2 items. [Schwinger and Stiensmeier-Pelster \(2011\)](#) found the reliability of this questionnaire according to the internal

consistency coefficient of 0.80. In Iran, [Tabe Bordbar and Rastegar \(2015\)](#) conducted this questionnaire on 258 people in 2014. In their research, Cronbach's alpha coefficient calculated for this questionnaire is 0.86. The value of Cronbach's alpha for this tool in the current study was 0.84.

Attributional Style Questionnaire (ASQ): This questionnaire was created for the first time by [Peterson et al. \(1982\)](#). This questionnaire was prepared by [Hoffart and Martinsen \(1991\)](#). It was revealed that Cronbach's alpha value was 0.67 for negative events and 0.69 for positive events. Also, the internal correlation and test-retest reliability of the three scales of the Attributional style questionnaire in a student sample have been examined by [Peterson et al. \(1982\)](#). [Peterson et al. \(1982\)](#) believe that the reason for the low coefficients in the scales of each of the dimensions separately (0.44 to 0.69) is the small number of events. In addition, since the scales have internal correlation in positive and negative situations, they can be combined for good and bad events, thus increasing the reliability to higher levels (Cronbach's alpha 0.75 and 0.72). In the research of [Heidari et al. \(2012\)](#), in order to check the validity of the questionnaire of Attributional styles, the method of construct validity (factor analysis) was used. In the method of factor analysis based on principal component analysis, two factors were extracted. These two factors were called positive attributional style and negative attributional style, which explain a total of 41.19% of the variance of the questionnaire items. Also, in this research, the results of the Cronbach's alpha coefficient calculated for the Attributional styles questionnaire is equal to 0.87.

Execution method: Taking into account the criteria for entering the research, including being a child of a veteran or a martyr or a self-sacrifice, the research questionnaires were given to those people who declared their readiness to answer the questionnaires. The participants completed the questionnaires individually. In this research, ethical considerations including obtaining informed consent, guaranteeing privacy and confidentiality were observed. The data was analyzed using Amos software and maximum likelihood estimation.

Results

In order to analyze the path, the assumptions of the path analysis, including the normality of the data distribution, the collinearity of the kurtosis and skewness values, the variance inflation factor, and the tolerance coefficient were checked.

Table 1. Descriptive findings related to the adequacy of sampling size and data

Variable	Kaiser-Meyer-Olkin (KMO)	Bartlett's test
Academic Self-Handicapping	0.74	0.01
Attributional Styles	0.80	0.01
Achievement Goals	0.90	0.01

As the contents of Table 1 show, the assumption of sufficient sample size and data is suitable for performing statistical analysis.

Table 2. Regression coefficient of attributional styles and achievement goals

Model		Unstandardized coefficients	Std. Error	Standardized coefficient	T value	P
1	Constant	3.85	0.23	-	16.51	0.01
	Attributional styles	-0.22	-0.05	-0.25	-4.27	0.01
2	Constant	4.56	0.29	-	15.44	0.01
	Attributional styles	-0.15	0.05	-0.17	-2.85	0.01
	Achievement goals	-0.19	-0.06	-0.18	-2.93	0.01
F=18.22, p< 0.01						

Table 2 illustrates the scenario in which attributional styles and achievement goals are concurrently incorporated as predictors of academic self-handicapping within the regression equation. As evidenced by the contents of Table 2, the introduction of achievement goals as the secondary predictor alongside the attributional styles variable (the primary predictor) results in a diminution of the regression coefficient value of the initial predictor variable, albeit remaining statistically significant. This finding substantiates the mediating role of achievement goals within the proposed model. The fit indices pertinent to the conceptual framework of this research are delineated in Table 3.

Table 3. Fit indices of the conceptual model

Indices	CMIN/DF	P	GFI	CFI	RMSEA	PCLOSE
Favorite value	< 3	> 0.05	< 0.95	< 0.90	< 0.06	> 0.05
Attained value	1.84	0.175	0.970	0.986	.054	.305

As evidenced in Table 3, the fit indices reported indicate that the conceptual model of this study demonstrates an adequate level of fit. Consequently, the hypothesis is substantiated, affirming that the proposed model exhibits a commendable fit. The model analyzed concerning the principal

hypothesis of the present research is illustrated in Figure 1 through the representation of standard coefficients.

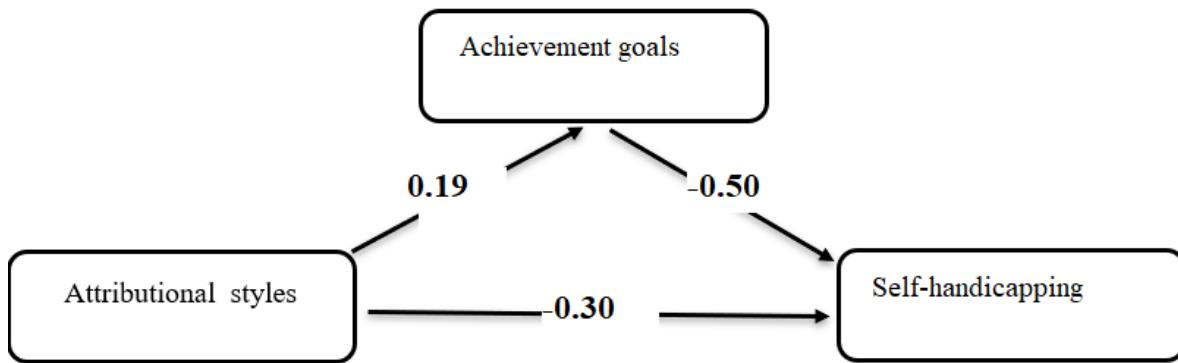


Figure 1. The analyzed model of the main hypothesis of the current research in the case of standard coefficients

Figure 1 illustrates the coefficient representing the standard direct effect of attributional styles on academic self-handicapping, with the mediating influence of achievement goals. As evidenced, the path coefficient linking attributional styles to academic self-handicapping is -0.30. This indicates that a one-unit increase in the standard deviation of attributional styles results in a 30% reduction in the standard deviation of academic self-handicapping. Furthermore, the path coefficient pertaining to achievement goals and academic self-handicapping is -0.50. This signifies that a one-unit increase in the standard deviation of achievement goals leads to a 50% decrease in the standard deviation of academic self-handicapping. Moreover, the path coefficient connecting attributional styles to achievement goals is -0.19. This implies that a one-unit increase in the standard deviation of attributional styles produces a 19% increase in the standard deviation of achievement goals. Consequently, the primary hypothesis is supported, indicating that achievement goals function as a mediating variable between attributional styles and academic self-handicapping among students of Shahed schools in Yasouj city.

Discussion

The findings derived from the analysis indicated that achievement goals serve as mediator in the association between attributional styles and academic self-handicapping. The results of the current

investigation regarding the prediction of academic self-handicapping based on attributional styles, alongside the mediating roles of achievement goals, are congruent with the outcomes of prior researches ([Ashrafifard & Mafakheri, 2017](#); [Bahrami & Amiri, 2020](#); [Chen et al., 2018](#); [Jafari et al.](#)).

This study provides a valuable perspective on the complex interactions between attributional style, goal orientation, and academic self-handicapping. The results highlight the significant predictive power of attributional styles on achievement goal orientation, which in turn negatively predicts academic self-handicapping behaviors. These findings underscore the potential for fostering positive goal orientations in students as a means to reduce self-handicapping behaviors. Since attributional styles also directly predict self-handicapping, interventions could further benefit from addressing students' underlying attributional tendencies, particularly by promoting adaptive attributions for success and failure, such as viewing challenges as learning opportunities.

The mediating role of achievement goal orientation suggests that promoting mastery-oriented goals—where students focus on learning and self-improvement—may reduce their tendency to engage in self-handicapping. These insights could guide school counselors and educators in designing tailored interventions that target students' goal-setting practices and attributional perspectives, encouraging them to adopt a growth mindset. Integrating such strategies in academic settings could foster resilience, improve academic performance, and promote students' psychological well-being.

This study's findings suggest practical applications for reducing academic self-handicapping among students by promoting positive goal orientations and adaptive attributional styles. Schools could develop intervention programs focusing on mastery-oriented goals, encouraging students to view learning as a process of growth rather than a measure of innate ability. Teacher training on recognizing self-handicapping behaviors and fostering resilient attitudes in students can be beneficial. Additionally, counseling services can integrate attributional retraining to help students focus on controllable aspects of their academic efforts. Future research could also explore how these dynamics unfold across diverse educational settings, age groups, and cultural contexts to broaden the applicability of these findings.

This study has several limitations. First, the specific focus on high school students in one region may limit the generalizability of findings to other populations. The cross-sectional design restricts

causal interpretations; longitudinal studies would be needed to establish clearer causal relationships. Moreover, reliance on self-report measures can introduce response biases, potentially affecting the accuracy of the data. The study also took a broad view of goal orientation, without examining specific types like mastery versus performance goals, which may have nuanced effects on self-handicapping behaviors. Finally, other potential mediators, such as self-efficacy or academic motivation, were not included and could provide additional insights if explored in future research.

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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