

The Correlation Between School Connectedness and Psychological Safety with Propensity for Destructive Behaviors in Students: The Mediating Role of Meaning of Education and Academic Self-Efficacy

Pakzad Sadeghi¹, PhD Candidate;  Fatemeh Sadat Marashian^{1*}, PhD;  Alireza Heidari¹, PhD

¹Department of Psychology, Ahvaz Branch, Islamic Azad University, Ahvaz, Iran

*Corresponding author: Fatemeh Sadat Marashian, PhD; Department of Psychology, Ahvaz Branch, Islamic Azad University, Postal code: 61349-37333, Ahvaz, Iran. Tel: +98 61 33348420; Fax: +98 61 33329200; Email: fsadatmarashian@gmail.com

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Abstract

Background: Understanding the factors that influence destructive behaviors in students is crucial to promote positive school environments and student well-being. This study aimed to investigate the correlation between school connectedness, psychological safety, and destructive behaviors in students, examining the mediating role of meaning of education and academic self-efficacy.

Methods: In this study, a correlational path analysis framework was adopted to examine the hypothesized relationships between the study variables. The target population encompassed all middle school students in Eyvan, Iran during the 2023 academic year. A multi-stage cluster sampling technique was employed to recruit a sample of 364 participants. The participants responded to the Destructive Behaviors Propensity Questionnaire (DBPQ), School Bonding Questionnaire (SBQ), Psychological Security Scale (PSS), Meaning of Education Questionnaire (MEQ), and Academic Self-Efficacy Questionnaire (ASEQ). The hypothesized model was evaluated using structural equation modeling (SEM) implemented in AMOS 23.

Results: This study found significant positive correlations between school connectedness and the meaning of education ($r=0.64$, $P<0.001$), academic self-efficacy ($r=0.34$, $P<0.001$), and a decrease in destructive behaviors ($r=-0.53$, $P<0.001$). Similarly, psychological safety had significant positive correlations with the meaning of education ($r=0.35$, $P<0.001$) and academic self-efficacy ($r=0.67$, $P<0.001$), but not directly with destructive behaviors ($r=-0.42$, $P<0.001$). Importantly, both school connectedness and psychological safety showed significant indirect effects on reducing destructive behaviors, mediated by the meaning of education and academic self-efficacy ($P<0.05$).

Conclusions: The present study identified a positive association between fostering school connectedness and psychological safety, and a range of positive student outcomes, including a stronger sense of meaning in education, higher academic self-efficacy, and a reduction in destructive behaviors. Given this positive association, schools can prioritize initiatives that cultivate these factors within their learning environments.

Keywords: Psychological safety, Self-efficacy, Self-injurious behavior, School, Students

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1. Introduction

Destructive behaviors are a set of actions that individuals take to deal with challenging or stressful situations. These behaviors can be harmful to oneself or others and can manifest in various ways, such as substance abuse, violence, or self-destructive tendencies (1). Psychological factors play a significant role in the development of destructive behaviors. Individuals with certain personality traits, such as low impulse control or high levels of stress, may be more prone to engaging in these behaviors (2). Additionally, negative experiences, such as trauma or abuse, can also increase the likelihood of destructive behavior (3). There is a meaningful correlation between the levels of destructive behaviors and the types

of psychological characteristics (4). Individuals with neuropsychological or neurotic psychological characteristics tend to exhibit lower levels of destructive behaviors compared to those with other characteristics (5).

Various factors and contexts can significantly influence students' destructive behaviors. These include individual's connection and alignment with the school and enhancing the level of psychological safety in individuals (6). The tendency of adolescents towards individual bonding with the school during their leisure time can reduce risky behaviors and act as a major obstacle for adolescents to engage in risky behaviors. Due to regular monitoring, these individuals are less influenced by stressful thoughts and bad friends (7). Moreover, with the

focus on education by managers and teachers, they have higher self-efficacy, which acts as a barrier against engaging in risky behaviors (8).

Given that the occurrence of crime is rooted in some personality traits of individuals such as lack of impulse control, lack of energy release, boredom, anger, aggression, and stress, psychological safety can lead to a change in the individual's attitude towards the surrounding environment, which ultimately controls criminal personality traits (9). This is because psychological safety, by changing negative and disturbing thoughts for students, leads to a change in cognition and thoughts, and can affect decisions and activities towards others, especially the family (10, 11).

Strengthening the connection between students and their school, and even their parents, is one of the key factors in reducing destructive behaviors (12). School connectedness refers to the individual's connections with the school and other aspects of their academic life (13, 14). Korpershoek and colleagues (15) defined school connectedness as involving participation in school, commitment to school values and beliefs, and a sense of belonging. Allen and colleagues (16) also defined school connectedness as students' feeling of being respected and comfortable in school. School connectedness is a broad term used to describe the relationships that students have with their school. The first comprehensive understanding of school connectedness was conceptualized based on Hirschi's (17) theory of social bonding or social control. In this theory, school connectedness is described as the result of four factors: attachment, commitment, participation, and belief in school. According to Hirschi (17), every one of these elements is highly correlated, and weakening one element will also weaken the others.

The results of studies have shown that educational programs that aim to increase students' health knowledge significantly reduce the incidence of such behaviors among students (18, 19). However, the level of students' connection to school and the meaning of education can play a role in students' tendency to engage in or avoid such behaviors (20). The meaning of education refers to the importance that learners place on education and reflects their interpretation and expectations, which may or may not coincide with the views of their teachers, parents, or peers (21). Meanings may be related

to, but not limited to, academic goals. For some students, education may mean achieving their specific goals, while for others it may have little to do with their goals (22).

Academic self-efficacy is defined as students' belief in their ability to successfully complete academic tasks and assignments. This belief plays a key role in students' academic motivation, effort, and perseverance. Improving physical and mental health can be effective in improving self-efficacy and preventing many psychological problems such as depression, suicide, stress, and other problems (23). In these conditions, being equipped with self-efficacy reduces the level of risk-taking and potential dangers for adolescents and young people and operationalizes their potential abilities. Thus, self-efficacy training strengthens young people's problem-solving processes and reduces risky behaviors and risk factors that are a major threat to young people (24). Academic self-efficacy is a multifaceted concept that plays a key role in students' academic success. By understanding the factors that influence a student's academic self-efficacy and identifying strategies to enhance it, we can contribute to enhancing the overall quality of education and supporting students in achieving their highest potential (25).

While research has explored the independent effects of school connectedness, psychological safety, meaning of education, and academic self-efficacy on reducing destructive behaviors in students (13-15), a gap exists in understanding the mediating roles of these factors. Therefore, the present study aimed to shed light on the underlying mechanisms by which school connectedness and psychological safety might influence students' propensity for destructive behaviors. Also, the present study also aimed to explore how the meaning of education and academic self-efficacy mediate this correlation. Through identifying the mediating factors, the study has the potential to develop more precise interventions. Schools can focus on fostering a sense of belonging, psychological safety, and a meaningful purpose in education, ultimately leading to a reduction in destructive behaviors. Understanding these correlations can contribute to promoting positive youth development by fostering a safe and supportive school environment that encourages students' academic self-belief and a positive view of education. The present study has the potential to move beyond simply recognizing the benefits of

school connectedness and psychological safety. It can provide valuable insights into how these factors work to reduce destructive behaviors, allowing for the development of more effective preventive strategies within schools. Therefore, the present study sought to elucidate the mediating role of the meaning of education and academic self-efficacy in correlations between school connectedness and psychological safety with propensity for destructive behaviors in students.

2. Methods

2.1. Design

The present study employed a correlational path analysis design.

2.2. Participants

The target population comprised all middle school students residing in Eyvan, Iran during the 2023 academic year. This population encompassed a total of 4445 individuals. Using a multi-stage cluster sampling method, a sample of 364 male adolescents was selected. To do so, 5 out of 20 middle schools in Eyvan were randomly selected from different parts of the city, and three classes were randomly selected from each school. In this study, the sample size was estimated based on the number of research variables.

2.3. Inclusion and Exclusion Criteria

This study recruited participants based on the following criteria: students enrolled in middle school during the 2023 academic year; ability to understand and complete the questionnaires; and willingness to participate in the study after receiving a full explanation of the research procedures and providing assent. The exclusion criteria were: cognitive impairments or learning disabilities; participants who did not complete all of the questionnaires or whose responses contained a significant number of missing data points.

2.4. Procedure

After obtaining ethical approval, researchers gained the support of participating schools by clearly explaining the purpose of the study to school officials. Informed consent was then obtained from both students and their parents. Then, the

study participants completed the questionnaires after receiving detailed instructions. To account for potential participant attrition, a sample size of 385 was initially targeted, exceeding the final sample of 364 questionnaires due to the exclusion of incomplete responses.

2.5. Instruments

2.5.1. Destructive Behaviors Propensity Questionnaire (DBPQ): This questionnaire was developed by Thawabieh and Al-rofo (26) to assess the level of destructive behaviors in school. It consists of 18 items, and respondents are asked to rate their agreement with each item on a 5-point Likert scale, ranging from 1 (strongly agree) to 5 (strongly disagree). The possible scores range between 18 (lowest possible score, indicating minimal destructive tendencies) to 90 (highest possible score, indicating the strongest tendency towards destructive behaviors). In a study by Saeedi and co-workers (27), the reliability of the questionnaire was estimated using Cronbach's alpha yielding coefficients of 0.94. Additionally, the authors (27) report a Content Validity Index (CVI) of 0.89 and a Content Validity Ratio (CVR) of 0.90 for the instrument. In the present study, the reliability of the questionnaire was estimated using Cronbach's alpha yielding coefficients 0.89.

2.5.2. School Bonding Questionnaire (SBQ): SBQ developed by Rezaei Sharif and colleagues (28) to assess school connectedness in students. SBQ is a 40-item instrument designed to evaluate six key constructs: attachment to teachers, school itself, staff, involvement within the school, and belief/commitment towards the institution. School connectedness, as measured by SBQ, encompasses the multifaceted nature of student relationships with the school environment. The instrument applies a five-point Likert scale anchored by "never" (1) and "always" (5). Scores range from a minimum of 40 to a maximum of 200, with higher scores indicating a greater sense of school connectedness. SBQ demonstrated adequate internal consistency, as evidenced by a Cronbach's alpha coefficient of 0.88 reported by its developers (28). The psychometric evaluation of the instrument yielded evidence of strong content validity. This was corroborated by a CVR of 0.92 and a CVI of 0.91 (28). Internal consistency reliability was further substantiated in the present study with a Cronbach's alpha coefficient of 0.83.

2.5.3. Psychological Security Scale (PSS): This self-report instrument, developed by Maslow and co-workers (29), measures psychological security using 62 items. The Psychological Security Scale encompasses various psychological constructs relevant to security and well-being, including environmental maladjustment, paranoia, self-belief, purpose in life, depression, sense of well-being, social security, self-awareness, self-confidence, anxiety, disappointment, life satisfaction, interpersonal adjustment, physical health perception, and feelings of inferiority. Each question has a corresponding scoring key, with a maximum achievable score of 62. PSS revealed adequate internal consistency, supported by a Cronbach's alpha coefficient of 0.84 reported by Namani and Bagherian Kakhki (30). Furthermore, evidence for its validity was provided by a CVI of 0.88 and a CVR of 0.87 (30). In this study, Cronbach's alpha was used to assess the consistency of the instrument, resulting in a reliability coefficient of 0.80.

2.5.4. The Meaning of Education Questionnaire (MEQ): The meaning of education questionnaire, a comprehensive instrument developed by Henderson-King and Smith (31), assesses student perceptions of the multifaceted significance of education. This 86-item questionnaire explores ten distinct components that represent various student priorities and goals in education. Each component is scored independently, with the highest score indicating the greatest relative importance for that particular meaning of education. A five-point Likert scale ranging from "very low" (1) to "very high" (5) is used for item scoring. The total score is derived by summing scores across all items, with a theoretical range of 86 (lowest possible score) to 430 (highest possible score). The internal consistency of the instrument has been reported with a Cronbach's alpha coefficient of $\alpha=0.79$ (32). Yousefi Afrashteh and colleagues (32) established the content validity of MEQ through a CVI of 0.84 and a CVR of 0.86. In this study, the instrument's reliability was 0.78.

2.5.5. Academic Self-Efficacy Questionnaire (ASEQ): The academic self-efficacy questionnaire, developed by Jinks and Morgan (33), is a 30-item instrument designed to measure students' beliefs about their academic capabilities. It comprises three subscales: talent (perceived natural ability), effort (belief in the effect of hard work), and texture (confidence in managing academic

challenges). A four-point Likert scale (1=strongly disagree, 4=strongly agree) is used to assess agreement with each statement. The highest and lowest scores in this questionnaire are 30 and 120. Internal consistency estimates for the academic self-efficacy questionnaire have been reported in various studies. Jinks and Morgan (33) obtained a Cronbach's alpha coefficient of 0.82, indicating good reliability. Hosseinkhani and colleagues (34) reported a similar value of 0.74, further supporting the reliability of the instrument. Additionally, ASEQ exhibited strong content validity, supported by a CVR of 0.97 and a CVI of 0.94 (34). In the present study, the Cronbach's alpha for the academic self-efficacy questionnaire was 0.82, demonstrating satisfactory internal consistency.

2.6. Statistical Analyses

Bivariate correlations between the study variables were assessed using Pearson's correlation coefficient. Structural equation modeling (SEM) was conducted using software packages such as SPSS and AMOS version 23 to examine the hypothesized model and its fit to the data. A visual representation of the hypothesized relationships among the study variables is presented in Figure 1.

3. Results

Table 1 summarizes the descriptive statistics for the study variables including means, standard deviations (SD), and the results of the Kolmogorov-Smirnov test for normality. As shown in Table 1, mean and standard deviation for school connectedness were 109.31 and 25.15, respectively; for psychological safety, 38.80 and 15.89; for meaning of education, 203.79 and 57.35; for academic self-efficacy, 82.40 and 20.79; and for disruptive behaviors, 39.07 and 15.54. Additionally, the Kolmogorov-Smirnov test confirmed the normality assumption for all study variables.

Table 2 shows the correlations between the study variables. Results indicated that school connectedness exhibited positive correlations with psychological safety ($r=0.23$), meaning of education ($r=0.64$), and academic self-efficacy ($r=0.34$). Conversely, school connectedness demonstrated a negative correlation with disruptive behaviors ($r=-0.53$). Similarly, psychological safety displayed a positive correlation with the meaning of education ($r=0.35$) but a negative correlation with disruptive behaviors ($r=-0.42$).

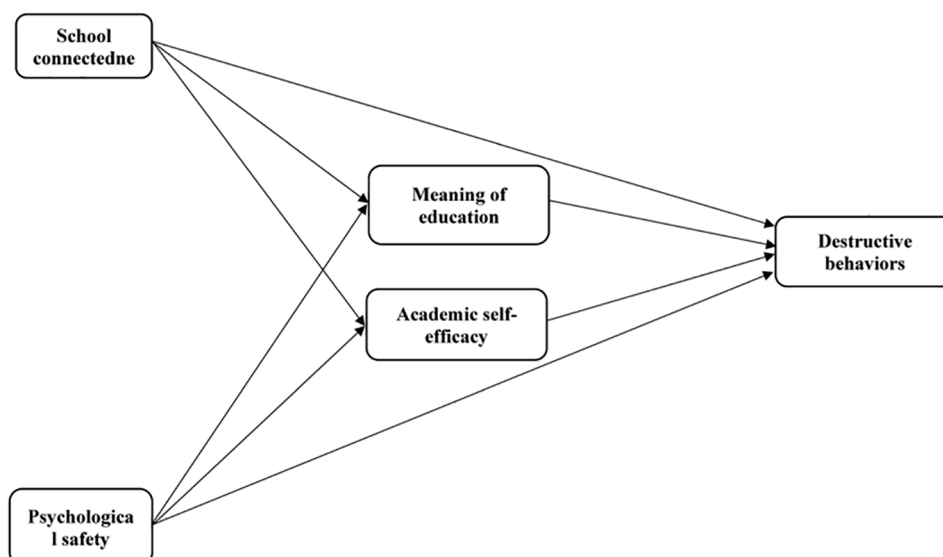


Figure 1: The figure shows the conceptual model of the research.

Table 1: Descriptive characteristics of study variables

Variables	Mean	SD	Kolmogorov-Smirnov	
			Z	P
School connectedness	109.31	25.15	0.08	0.161
Psychological safety	38.80	15.89	0.13	0.112
Meaning of education	203.79	57.35	0.10	0.134
Academic self-efficacy	82.40	20.79	0.06	0.190
Destructive behaviors	39.07	15.54	0.06	0.190

SD: Standard Deviation

Table 2: Correlation matrix of study variables in the student

Variables	1	2	3	4	5
1- School connectedness	1	0.23*	0.64**	0.34**	-0.53**
2- Psychological safety	-	1	0.35**	0.67**	-0.42**
3- Meaning of education	-	-	1	0.47**	-0.69**
4- Academic self-efficacy	-	-	-	1	-0.61**
5- Destructive behaviors	-	-	-	-	1

**P<0.01; *P<0.05

Interestingly, the meaning of education exhibited a negative correlation with academic self-efficacy ($r=-0.69$). Finally, academic self-efficacy demonstrated a negative correlation with disruptive behaviors ($r=-0.61$).

Structural equation modeling (SEM) was used to test the proposed model. However, the initial model exhibited inadequate fit indices, suggesting some aspects of the model did not align well with the data. In the proposed model, the path from psychological safety to student disruptive behaviors was not significant. Consequently, the model was modified by removing this path, and the fit indices were re-evaluated. Figures 2 and 3 illustrate the proposed and final research models

with the corresponding path coefficients.

Table 3 presents the fit indices for the proposed and final models. The results indicated that the model demonstrated good fit, as evidenced by the following indices: Chi-square (χ^2)=2.17, $df=2$; Relative chi-square (χ^2/df)=1.08; Goodness-of-fit index (GFI)=0.99; Adjusted goodness-of-fit index (AGFI)=0.98; Incremental fit index (IFI)=0.99; Tucker-Lewis index (TLI)=0.98; Comparative fit index (CFI)=0.99; Root mean square error of approximation (RMSEA)=0.034.

Table 4 shows the paths and their standardized coefficients in the proposed and final models. The results revealed that the direct correlation between

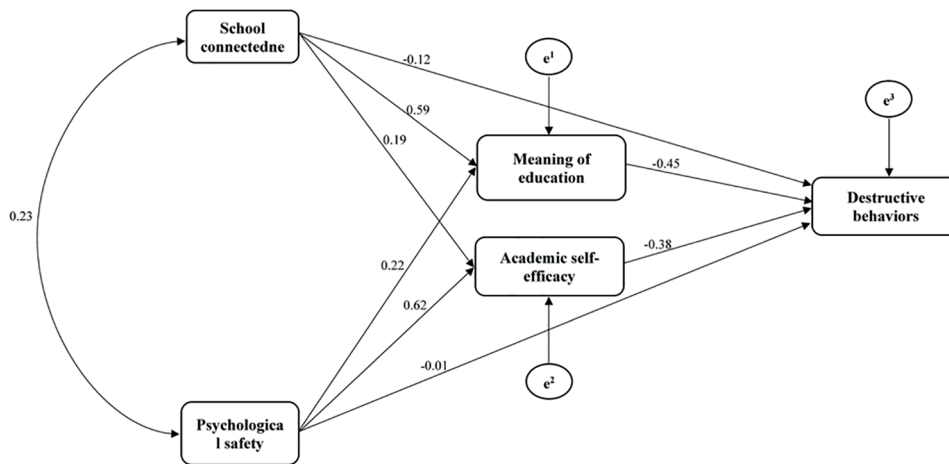


Figure 2: The figure shows the proposed research model with standardized path coefficients.

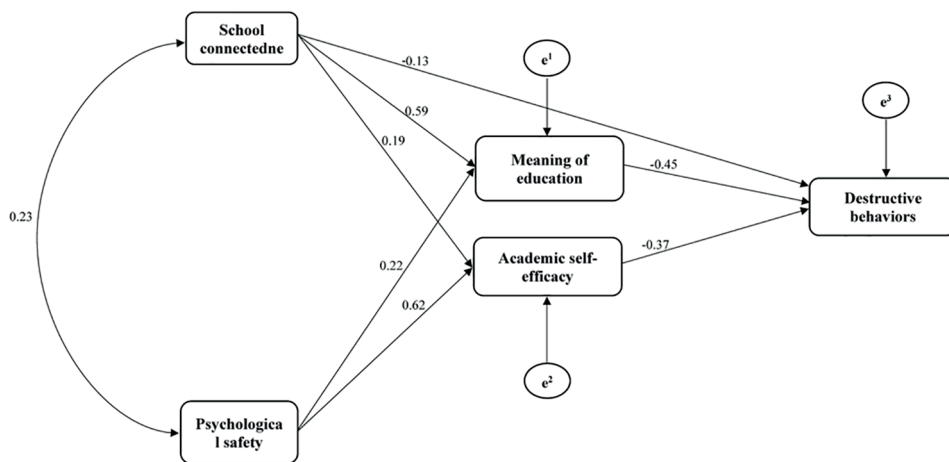


Figure 3: The figure shows the final research model with standardized path coefficients.

Table 3: Fit indices for the proposed and final models

Fit indicators	χ^2	df	(χ^2/df)	GFI	AGFI	IFI	TLI	CFI	NFI	RMSEA
Proposed model	21.12	1	21.12	0.98	0.66	0.98	0.74	0.97	0.97	0.240
Final model	2.17	2	1.08	0.99	0.98	0.99	0.98	0.99	0.99	0.034

χ^2 : Chi-square; χ^2/df : The ratio of chi-square to degree of freedom; GFI: Goodness of Fit Index; IFI: Incremental Fit Index; NFI: Normed Fit Index; RMSEA: Root Mean Square Error of Approximation

Table 4: Standard path coefficient related to direct and indirect correlations between variables

Paths	Proposed model		Final model	
	β	P	β	P
School connectedness → Meaning of education	0.59	0.001	0.54	0.001
School connectedness → Academic self-efficacy	0.19	0.001	0.19	0.001
School connectedness → Destructive behaviors	-0.12	0.008	-0.13	0.007
Psychological safety → Meaning of education	0.22	0.001	0.22	0.001
Psychological safety → Academic self-efficacy	0.62	0.001	0.62	0.001
Psychological safety → Destructive behaviors	-0.01	0.821	-	-
Meaning of education → Destructive behaviors	-0.45	0.001	-0.45	0.001
Academic self-efficacy → Destructive behaviors	-0.38	0.001	-0.37	0.001
School connectedness → Destructive behaviors through meaning of education	-0.13	0.008	-0.13	0.008
School connectedness → Destructive behaviors through academic self-efficacy	-0.09	0.011	-0.09	0.011
Psychological safety → Destructive behaviors through meaning of education	-0.11	0.007	-0.11	0.007
Psychological safety → Destructive behaviors through academic self-efficacy	-0.30	0.013	-0.30	0.013

school connectedness and the meaning of education ($P < 0.001$), academic self-efficacy ($P < 0.001$), and disruptive behaviors ($P = 0.007$) was significant. The direct correlation between psychological safety and the meaning of education and academic self-efficacy was also significant ($P < 0.001$). However, the direct correlation between psychological safety and student disruptive behaviors was not significant. Finally, the direct correlation between the meaning of education and academic self-efficacy with disruptive behaviors was significant ($P < 0.001$). The results further indicated that the correlation between school connectedness and disruptive behaviors was significant when mediated by the meaning of education ($P = 0.008$) and academic self-efficacy ($P = 0.011$). Similarly, the correlation between psychological safety and disruptive behaviors was significant when mediated by the meaning of education ($P = 0.007$) and academic self-efficacy ($P = 0.013$).

4. Discussion

This study aimed to investigate the mediating role of the meaning of education and academic self-efficacy in correlations between school connectedness and psychological safety with the propensity for destructive behaviors in high school students. The results revealed a significant positive correlation between school connectedness with academic self-efficacy and the meaning of education in students. This finding aligned with the research of Merati and Ezatollah (35). This correlation can be explained by the fact that the stronger the school connectedness, the higher self-efficacy and the meaning of education for students. The most important outcome of attending school and belonging to it is the development of necessary social skills. Students who have trouble interacting with their peers and lack a sense of belonging are at risk of emotional and social problems and poor academic performance (13). A sense of belonging to the school, principal, teachers, staff, and purposeful peer groups can create a sense of value and purpose in students, foster self-esteem, and strengthen a sense of responsibility and self-awareness (14). Studies have shown that when individuals feel a sense of belonging to a specific environment or place, their commitment, sense of responsibility, and dedication to that environment or place grow stronger (12). Hope and attachment are two vital elements in the process of forming a sense of belonging (36). Hope, as a sense of confidence and

trust in the environment on the one hand, and individual capabilities on the other hand, prepares students for adaptation. Some of the important consequences of hope and attachment are increased student interest in social life and school attendance. Additionally, attachments gradually provide the groundwork for the individual to feel a sense of belonging. Attachment allows students to benefit from their personal abilities and increases their social efficiency (37).

Students' academic self-efficacy is decreased due to their perception of the lack of usefulness of school work, school-related activities, and peer interactions for school engagement. In comparison with therapeutic and remedial programs, creating friendly, supportive, and accepting peer interactions in school contributes more to increasing students' academic self-efficacy. Liu and colleagues (38) also believed that encouraging teachers to use collaborative learning increases students' motivational and learning-related engagement indices, including academic self-efficacy. This is because collaborative learning, by creating diverse educational conditions that provide opportunities for overall student engagement, increases their motivation, positive classroom behavior, expands social networks, and academic progress. Adolescents have a strong psychological need for belonging and attachment, and school is an important source for meeting this need. Adolescents who have a strong bond to school are more likely to be academically motivated and successful, as having a sense of enjoyment from belonging to school is a significant guiding factor towards experiencing positive emotions. Students who have a high sense of school belonging and academic enjoyment will report high academic self-efficacy in the classroom (8).

The results of this study revealed a significant negative direct correlation between school connectedness and disruptive behaviors. This finding aligned with the findings of Saeedi and co-workers (27). Thus, it can be concluded that the stronger the school connectedness in students, the less disruptive behaviors they will exhibit. One theory that can be used to explain this finding is the Attachment Theory (39), According to which, parental affection and care contribute to meeting the emotional developmental needs of children. Children who successfully go through the attachment process perceive their parents as a

reliable source of trust and security (39). This early bond with parental figures affects behavior and perceptions and acts as an internalized model that helps the child develop and maintain relationships with others. Ideally, school can provide opportunities for students to enhance their initial positive attachments to adults or to compensate and repair weak and damaged attachments through bonding with adult role models in school. A student feels a strong connection to school when it is important and influential to them. When the conditions and environment of the school are aligned with the students' desires and needs, and their opinions and beliefs are respected, they reciprocally follow the rules and regulations of the school. They also exhibit desirable behaviors to have a good relationship and contribute to the development and construction of themselves and the school environment.

The results revealed a significant correlation between psychological safety with the meaning of education and academic self-efficacy in students. Therefore, it can be concluded that the higher the psychological safety of students, the higher the meaning of education and academic self-efficacy. Psychological safety can have a significant impact on many aspects of individuals' lives. It is particularly important among students and enables them to create conditions for pursuing their goals, especially academic progress. This ultimately enhances the meaning of education in the path of academic progress. Psychological safety includes self-confidence, belief in one's abilities and possessions, and optimism about the future, which can all contribute to academic progress for students (6). The higher the student's level of confidence and trust in their academic abilities, the better they can believe in their capabilities and use them to succeed in their studies. Problem-solving skills, which essentially refer to dealing with academic challenges, can also assist students and enable them to easily solve problems. This is only possible with a high level of psychological safety. On the other hand, a high level of awareness and self-consciousness in students helps them understand educational issues better and take action to complete their academic tasks. An individual with high psychological safety can respect themselves, assess their abilities realistically, and have good self-confidence.

The results indicated a significant negative direct

correlation between the meaning of education and academic self-efficacy with disruptive behaviors in students. This can be explained due to the fact that the higher the meaning of education and academic self-efficacy in students, the less disruptive behaviors they will exhibit. Studies have shown that educational programs designed to increase students' health knowledge significantly reduce the occurrence of such behaviors among students (21, 24). However, the level of students' connection to schools and the meaning of education can play a role in preventing students from engaging in disruptive behaviors.

On the other hand, equipping adolescents and young people with self-efficacy reduces the level of risk-taking and actualizes their potential. Consequently, self-efficacy training strengthens young people's problem-solving processes and reduces risky behaviors and risk factors that pose a significant threat to young people (7). Academic self-efficacy affects the level of stress psychological pressure and depression caused by threatening situations. Individuals with high efficacy reduce their level of psychological pressure in stressful situations. However, individuals with low academic self-efficacy experience high anxiety in controlling threats and generalize their inefficacy. They perceive many aspects of the environment as dangerous and threatening, which can lead to stress and psychological pressure (40). Students who believe they can control potential threats and pressures do not let disruptive factors enter their minds and, as a result, are not disturbed by them and will not engage in disruptive behaviors.

The findings of this study indicated a significant correlation between school connectedness and disruptive behaviors in students, mediated by the meaning of education and academic self-efficacy. Student engagement is achieved from a social perspective when students feel a sense of belonging to the school and its infrastructure and participate in its development. Evaluating and measuring the school connectedness index can explain and achieve judgments about the sense of responsibility and participation of school members in developing school programs and extracurricular activities (8). School connectedness is considered as the result of individual self-control. Students with low self-control will also have problems with school connectedness. In the social development model, there are three essential

factors in school connectedness including: opportunity for engagement or participation, skills for participation, and reinforcement of these engagements. School connectedness is the result of individuals' assessment of their competence or effectiveness in performing successful behaviors in school, and it emphasizes self-efficacy (12). School connectedness, teachers, and peers during high school are particularly strong predictors of future success, academic achievement, and adolescent skills.

The findings of this study revealed a significant correlation between psychological safety and disruptive behaviors in students, mediated by the meaning of education and academic self-efficacy. Considering that the occurrence of crime is rooted in some personality traits of individuals such as lack of impulse control, lack of energy release, boredom and anger, aggression, and individual stress, psychological safety can lead to a change in the individual's attitude toward the environment. Psychological safety, by changing negative and disturbing thoughts for the student, leads to a change in cognitions and thoughts and can affect decisions and activities toward others (41). Psychological problems such as depression, anxiety, stress, and lack of self-confidence play a role in the emergence of social harm. Promoting physical and mental health can be effective in improving self-efficacy and preventing many psychological problems such as depression, suicide, and stress in students (6). A student who constantly feels insecure, afraid, and in danger cannot be a healthy person and reacts with aggression and anxiety and is constantly trying to ward off potential dangers in his mental world. A person whose safety needs are met always feels acceptance of himself and others, self-esteem, social and academic interest, and empathy.

4.1. Limitations

The generalizability of the results of this study is limited by its sample composition. Focusing solely on male students from middle schools in Eyvan, Iran, restricts the applicability of the findings to other populations, such as females, students of different age groups, locations, or educational settings. Future research should strive for more representative samples to enhance generalizability. Furthermore, the correlational design employed in this investigation precludes the establishment of causal relationships between variables. To

explore causality, future studies could benefit from implementing experimental or quasi-experimental designs. Additionally, the final selection within chosen schools relied on convenience sampling after employing a multi-stage cluster sampling method. This approach might introduce selection bias if specific classes within the schools differed systematically from others. Future studies could mitigate this concern through using more robust random sampling techniques within schools. The exclusive reliance on self-reported student questionnaires introduces potential social desirability bias. Incorporating additional data sources, such as teacher or parent reports, could provide a more triangulated and potentially more accurate representation of the constructs under study. Finally, the study's examination of data from a single academic year (2023) restricts the ability to draw conclusions about longitudinal trends. Longitudinal studies following students over time could offer more robust insights into the dynamics of the relationships explored.

Despite the limitations acknowledged, the present study yields preliminary insights with potential clinical relevance, particularly for school-based interventions. These interventions could target fostering a positive school climate and reducing destructive behaviors in students. One valuable target for such interventions might be enhancing students' sense of school connectedness. Additionally, promoting a sense of psychological safety within schools might be another promising avenue to explore for positive student outcomes.

5. Conclusions

School connectedness directly influences the meaning of education, academic self-efficacy, and reduces disruptive behaviors. Similarly, psychological safety directly strengthens the meaning of education and academic self-efficacy. The study highlighted the mediating role of the meaning of education and academic self-efficacy. School connectedness and psychological safety exert their influence on disruptive behaviors indirectly, through these mediating variables. Students with a stronger sense of school connectedness and psychological safety develop a deeper meaning of education, which in turn fosters academic self-efficacy. Ultimately, increased meaning and self-efficacy lead to a reduction in disruptive behaviors. These findings suggested that interventions

promoting school connectedness and psychological safety may be most effective in reducing disruptive behaviors when they also cultivate the meaning of education and academic self-efficacy. Future research can explore the specific mechanisms by which school connectedness and psychological safety foster these mediating variables.

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Ethical Approval

The present study was approved by the Ethics Committee of Islamic Azad University- Ahvaz Branch with the code of IR.IAU.AHVAZ.REC.1402.016. Also, written informed consent was obtained from the participants.

Authors' Contribution

Pakzad Sadeghi: Substantial contributions to the conception and design of the work, and the acquisition, analysis, and interpretation of data for the work, reviewing the work critically for important intellectual content. Fatemeh Sadat Marashian: Substantial contributions to the conception and design of the work, and the acquisition, analysis, and interpretation of data for the work, reviewing the work critically for important intellectual content. Alireza Heidari: Substantial contributions to the conception of the work, drafting the work and reviewing it critically for important intellectual content; All authors have read and approved the final manuscript and agree to be accountable for all aspects of the work, such as the questions related to the accuracy or integrity of any part of the work.

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References

1. Mahvar T, Ashghali Farahani M, Aryankhesal A. Conflict management strategies in coping with

- students' disruptive behaviors in the classroom: Systematized review. *J Adv Med Educ Prof.* 2018;6(3):102-114. PubMed PMID: 30013994; PubMed Central PMCID: PMC6039817.
2. Martín Retuerto D, Ros Martínez de Lahidalga I, Ibañez Lasurtegui I. Disruptive Behavior Programs on Primary School Students: A Systematic Review. *Eur J Investig Health Psychol Educ.* 2020;10(4):995-1009. doi: 10.3390/ejihpe10040070. PubMed PMID: 34542431; PubMed Central PMCID: PMC8314313.
3. McClowry SG, Snow DL, Tamis-Lemonda CS, Rodriguez ET. Testing the Efficacy of INSIGHTS on Student Disruptive Behavior, Classroom Management, and Student Competence in Inner City Primary Grades. *School Ment Health.* 2010;2(1):23-35. doi: 10.1007/s12310-009-9023-8. PubMed PMID: 20234765; PubMed Central PMCID: PMC2830583.
4. Joulaei H, Foroozanfar Z, Joulaei R, Heydari MR, Afrashteh S, Ziaee A, et al. Early Maladaptive Schemas and High-Risk Behaviors Among Adolescents in Shiraz, Iran: A Cross-Sectional Study. *Int J School Health.* 2023;10(4):206-216. doi: 10.30476/intjsh.2023.99629.1331.
5. Sun RC, Shek DTL. Student classroom misbehavior: an exploratory study based on teachers' perceptions. *ScientificWorldJournal.* 2012;2012:208907. doi: 10.1100/2012/208907. PubMed PMID: 22919297; PubMed Central PMCID: PMC3415159.
6. Han S, Liu D, Lv Y. The Influence of Psychological Safety on Students' Creativity in Project-Based Learning: The Mediating Role of Psychological Empowerment. *Front Psychol.* 2022;13:865123. doi: 10.3389/fpsyg.2022.865123. PubMed PMID: 35572343; PubMed Central PMCID: PMC9093144.
7. Haghdoost A, Abazari F, Abbaszadeh A, Dortaj Rabori E. Family and the risky behaviors of high school students. *Iran Red Crescent Med J.* 2014;16(10):e15931. doi: 10.5812/ircmj.15931. PubMed PMID: 25558380; PubMed Central PMCID: PMC4270667.
8. Ataei Nasab M, Safarzadeh S, Talebzadeh Shoushtari M. Academic Well-Being in Students with Physical-Motor Disabilities: Examining the Mediating Role of School Belonging, Self-Compassion, and Academic Self-Efficacy. *Int J School Health.* 2023;10(4):189-196. doi: 10.30476/intjsh.2023.99096.1316.
9. Tharshini NK, Ibrahim F, Kamaluddin MR, Rathakrishnan B, Che Mohd Nasir N. The Link between Individual Personality Traits and Criminality: A Systematic Review. *Int J Environ*

- Res Public Health. 2021;18(16):8663. doi: 10.3390/ijerph18168663. PubMed PMID: 34444412; PubMed Central PMCID: PMC8391956.
10. Wang L, Zhang Y, Chen L, Wang J, Jia F, Li F, et al. Psychosocial and behavioral problems of children and adolescents in the early stage of reopening schools after the COVID-19 pandemic: a national cross-sectional study in China. *Transl Psychiatry*. 2021;11(1):342. doi: 10.1038/s41398-021-01462-z. PubMed PMID: 34083509; PubMed Central PMCID: PMC8172553.
 11. Alakashee B, Al Gharaibeh F, El-Mneizel A, Aderibigbe S. Teachers' views about school students' behavioral problems in the Emirate of Sharjah: An exploratory study. *Heliyon*. 2022;8(6):e09756. doi: 10.1016/j.heliyon.2022.e09756. PubMed PMID: 35770146; PubMed Central PMCID: PMC9234592.
 12. Oelsner J, Lippold MA, Greenberg MT. Factors Influencing the Development of School Bonding Among Middle School Students. *J Early Adolesc*. 2011;31(3):463-487. doi: 10.1177/0272431610366244. PubMed PMID: 22427716; PubMed Central PMCID: PMC3304049.
 13. Varela JJ, Muñoz GJ, Reschly A, Melipillán R. Bullying Behavior and School Bonding for Predicting Student Engagement Among Chilean Adolescents. *Journal of School Violence*. 2022;21(3):327-41. doi: 10.1080/15388220.2022.2098501.
 14. Amirpour B, Takallou F, Valadbeigi D. Investigating the Dimensions of Victimization in Sixth-Grade Male Students and Its Association with Subjective Well-Being in School and School Bonding. *Int J School Health*. 2024;11(1):13-21. doi: 10.30476/INTJSH.2023.100110.1347.
 15. Korpershoek H, Canrinus ET, Fokkens-Bruinsma M, de Boer H. The relationships between school belonging and students' motivational, social-emotional, behavioural, and academic outcomes in secondary education: a meta-analytic review. *Research Papers in Education*. 2020;35(6):641-680. doi: 10.1080/02671522.2019.1615116.
 16. Allen K-A, Slaten CD, Arslan G, Roffey S, Craig H, Vella-Brodrick DA. School Belonging: The Importance of Student and Teacher Relationships. In: Kern ML, Wehmeyer ML, editors. *The Palgrave Handbook of Positive Education*. Cham: Springer International Publishing; 2021. p. 525-50.
 17. Hirschi T. *Causes of Delinquency*. Berkeley: University of California Press; 1969.
 18. Iri H, Hassanzadeh R, Asadi J. Association of Academic Buoyancy with School-Related Anxiety and Social Participation among Students Educated via the Educational Approaches of Mizan and Regular Schools. *Int J School Health*. 2021;8(4):226-233. doi: 10.30476/intjsh.2021.92760.1177.
 19. Pérez-Jorge D, González-Luis MA, Rodríguez-Jiménez MDC, Ariño-Mateo E. Educational Programs for the Promotion of Health at School: A Systematic Review. *Int J Environ Res Public Health*. 2021;18(20):10818. doi: 10.3390/ijerph182010818. PubMed PMID: 34682561; PubMed Central PMCID: PMC8535642.
 20. Sadri MR, Golparvar M, Aghaei A, Gilliam L. Comparison of Effectiveness of Academic Meaning Oriented Training and Positive Psychology Training on Academic Optimism and Meaning of Education. *Positive Psychology Research*. 2021;7(3):31-50. doi: 10.22108/ppls.2021.129078.2133. Persian.
 21. Rashidi A, Faramarzi S, Rahmani Malekabad M. Comparison of the Academic Help-Seeking and Meanings of Education in Deaf, Blind and Normal Students. *Pajouhan Sci J*. 2021;19(4):43-51. doi: 10.61186/psj.19.4.43. Persian.
 22. Schippers MC, Morisano D, Locke EA, Scheepers AWA, Latham GP, de Jong EM. Writing about personal goals and plans regardless of goal type boosts academic performance. *Contemporary Educational Psychology*. 2020;60:101823. doi: 10.1016/j.cedpsych.2019.101823.
 23. Darabi K, Gholamzadeh Jofreh M, Shahbazi M. The Role of Self-Regulation Training in Self-Efficacy and Academic Motivation of Male Tenth Graders in Ahvaz, Iran. *Int J School Health*. 2022;9(2):106-112. doi: 10.30476/intjsh.2022.94543.1210.
 24. Hayat AA, Shateri K. The Role of Academic Self-Efficacy in Improving Students' Metacognitive Learning Strategies. *J Adv Med Educ Prof*. 2019;7(4):205-212. doi: 10.30476/jamp.2019.81200. PubMed PMID: 31750358; PubMed Central PMCID: PMC6820011.
 25. Doménech-Betoret F, Abellán-Roselló L, Gómez-Artiga A. Self-Efficacy, Satisfaction, and Academic Achievement: The Mediator Role of Students' Expectancy-Value Beliefs. *Front Psychol*. 2017;8:1193. doi: 10.3389/fpsyg.2017.01193. PubMed PMID: 28769839; PubMed Central PMCID: PMC5513915.
 26. Thawabieh AM, Al-rofo MA. Vandalism at Boys Schools in Jordan. *International Journal of Educational Sciences*. 2010;2(1):41-46. doi: 10.1080/09751122.2010.11889999.
 27. Saeedi Y, Maktabi G, Hajiyakhchali A. The relationship between school connectedness and academic satisfaction with tendency to vandalism in male secondary high school student of Ahvaz.

- Journal of School Psychology. 2020;9(3):83-100. Persian.
28. Rezaei Sharif A, Hejazi E, Gazi Tabatabaei M, Ejei J. Developing and preparation of school bonding questionnaire (SBQ) in students. *Journal of School Psychology*. 2014;3(1):55-67. Persian.
 29. Maslow AH, Hirsh E, Stein M, Honigmann I. A Clinically Derived Test for Measuring Psychological Security-Insecurity. *The Journal of General Psychology*. 1945;33(1):21-41. doi: 10.1080/00221309.1945.10544493.
 30. Namani E, Bagherian Kakhki M. Mediating Role of Psychological Security in the Relationship between Optimism and Self-Compassion with Psychological Well-Being in Veterans' Spouses. *Iran J War Public Health*. 2019;11(2):101-108. Persian.
 31. Henderson-King D, Smith MN. Meanings of Education for University Students: Academic Motivation and Personal Values as Predictors. *Social Psychology of Education*. 2006;9(2):195-221. doi: 10.1007/s11218-006-0006-4.
 32. Yousefi Afrashteh M, Hejazi M, Davoodi N. The Mediating Role of Academic Resilience in Relation to The Dimensions of the Meaning of Education and Stress in Nursing Students' Life in. *Iranian Journal of Medical Education*. 2020;20:397-405. Persian.
 33. Jinks J, Morgan V. Children's Perceived Academic Self-Efficacy: An Inventory Scale. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*. 1999;72(4):224-230. doi: 10.1080/00098659909599398.
 34. Hosseinkhani Z, Hassanabadi H, Parsaeian M, Nedjat S. Epidemiologic assessment of self-concept and academic self-efficacy in Iranian high school students: Multilevel analysis. *J Educ Health Promot*. 2020;9:315. doi: 10.4103/jehp.jehp_445_20. PubMed PMID: 33426119; PubMed Central PMCID: PMC7774608.
 35. Merati A, Ghadampour E. Providing a model of connection with school based on identity styles and school atmosphere with the mediation of academic self-efficacy. *Journal of Psychology*. 2022(1):337-347. Persian.
 36. Dost G, Mazzoli Smith L. Understanding higher education students' sense of belonging: a qualitative meta-ethnographic analysis. *Journal of Further and Higher Education*. 2023;47(6):822-49. doi: 10.1080/0309877X.2023.2191176.
 37. Wang G, Chen G, Li B. The effects of teacher-student reciprocity on students' sense of belonging to the university; a moderated mediation model. *Front Educ*. 2024;8. doi: 10.3389/educ.2023.1284177.
 38. Liu S, Zaigham GHK, Rashid RM, Bilal A. Social Media-Based Collaborative Learning Effects on Student Performance/Learner Performance With Moderating Role of Academic Self-Efficacy. *Front Psychol*. 2022;13:903919. doi: 10.3389/fpsyg.2022.903919. PubMed PMID: 35899006; PubMed Central PMCID: PMC9309218.
 39. Bowlby J. Attachment and loss: Retrospect and prospect. *Am J Orthopsychiatry*. 1982;52(4):664-678. doi: 10.1111/j.1939-0025.1982.tb01456.x. PubMed PMID: 7148988.
 40. Tsang SK, Hui EK, Law BC. Self-efficacy as a positive youth development construct: a conceptual review. *ScientificWorldJournal*. 2012;2012:452327. doi: 10.1100/2012/452327. PubMed PMID: 22645423; PubMed Central PMCID: PMC3351108.
 41. Hardie P, O'Donovan R, Jarvis S, Redmond C. Key tips to providing a psychologically safe learning environment in the clinical setting. *BMC Med Educ*. 2022;22(1):816. doi: 10.1186/s12909-022-03892-9. PubMed PMID: 36443730; PubMed Central PMCID: PMC9706932.