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RESEARCH ARTICLE

We Can Help! A School-Based Intervention: Outcomes of Academic Self-Efficacy Intervention among Turkish High School Students

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This research introduces a tailored intervention program drawing from established psychological theories, aimed at enhancing high school students' self-esteem, self-efficacy beliefs, and mitigating exam anxiety. This holistic approach integrates diverse psychological concepts, practical techniques, and real-life inspiration. Engaging 129 high school students, an 11-week intervention was administered, encompassing pre-and post-test assessments of demographics, academic self-efficacy, university entrance exam self-efficacy, and anxiety levels. Noteworthy outcomes highlight significant enhancements in academic and university entrance exam self-efficacy, along with substantial reduction in exam anxiety post-intervention. Exam anxiety emerged as a predictor of self-efficacy. While recognizing limitations, the study presents promising avenues for future research, further enriching discussions on effective strategies to enhance students' psychological well-being and academic success within the high-stakes high school context.

Keywords: school-based intervention, academic self-efficacy, university entrance exam, exam anxiety, Turkish high school students

Adolescence represents a critical juncture in the continuum of human development, characterized by a myriad of novel challenges as individuals navigate the path to adulthood (Chen, 1999). This transitional period requires the acquisition of a diverse skill set to adapt effectively to the complexities of adult society. Central to this developmental journey is the cultivation of cognitive and social competencies that mitigate the tendency toward despondency (Chen, 1999). As adolescents traverse an expanding social landscape, their responsibilities grow, aligning with the increasing expectations they are tasked with meeting. Navigating the intricate terrain marked by pubertal changes, complex social dynamics, and critical educational shifts underscores the inherent challenges of this developmental phase.

In the midst of the whirlwind of adolescent transformations, the concept of self-efficacy emerges as a cornerstone, particularly within the academic realm. Deeply intertwined within discourses on childhood, adolescence, and education, self-efficacy has garnered notable scholarly attention due to its intricate links to success, motivation, and

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performance over time (Marsh & Martin, 2011; Mills et al., 2007; Pajares & Schunk, 2001). Rooted in Bandura's seminal social learning theory (1986), self-efficacy encapsulates an individual's beliefs and self-assurance in their capability to competently execute tasks. The significance of self-efficacy is evident in scholarly endeavours that explore its connections to a spectrum of developmental and behavioural outcomes.

Self-Efficacy

Self-efficacy, as defined by Bandura (1992, 1997), pertains to an individual's capacity to effectively engage with and master intricate tasks and situations. It encapsulates one's beliefs and confidence in their ability to achieve success in specific contexts (Bong & Skaalvik, 2003). The concept of self-efficacy has been the focal point of extensive research, unveiling its profound influence on human development and adaptability (Bandura, 1995; Schawazer, 2014). Furthermore, empirical evidence consistently underscores the predictive power of self-efficacy on subsequent performance (Pajares, 1996). While self-efficacy is inherently intricate, Bandura (1977) posits four primary sources that contribute to its formation.

Research highlights the pivotal role of an individual's past experiences, particularly their prior achievements and performance, as a fundamental source of self-efficacy (Arslan, 2012; Britner & Pajares, 2006). For instance, students often bolster their self-belief in their examination performance by drawing upon their previous successes in analogous assessments. Furthermore, indirect experiences acquired through observing exemplary models also contribute to shaping self-efficacy (Schunk, 1981). In addition to direct experiences, indirect experiences, such as observing high self-efficacy role models, play a pivotal role in influencing one's self-efficacy (Schunk, 1981). Another determinant of an individual's self-efficacy beliefs is their physiological state, which holds significant sway in Bandura's self-efficacy framework (Hodges & Murphy, 2009). Unfavourable physiological conditions, such as stress, fatigue, and anxiety, are salient factors that guide individuals in their self-assessment of potential success and subsequently influence the development of self-efficacy.

Academic Self-Efficacy

Of particular resonance is the period of transition to adolescence, when the focus of youth pivots toward school and friendships, and the familial sphere loses its dominant influence (Eccles & Roeser, 2011). Herein, academic self-efficacy assumes a pivotal role in steering academic achievement (Bandura et al., 1996; Chemers et al., 2001). At this pivotal juncture, adolescents are tasked with cultivating academic self-efficacy, a critical undertaking that forms the foundation of their scholastic journey. Recognizing the lasting imprint of academic self-efficacy on students' educational journey underscores the significance of nurturing and enhancing this belief system.

Within the context of education, academic self-efficacy specifically refers to an individual's confidence in their capacity to meet the demands and challenges presented by the educational environment (Patrick et al., 1997; Putwain et al., 2013). Academic self-efficacy has a profound impact on students' educational engagement, goal-setting, task selection, perseverance, intrinsic motivation, academic performance, attainment, and career choices (Bong & Skaalvik, 2003). Robust self-efficacy beliefs in academic settings contribute significantly to goal commitment, motivation, resilience in the face of academic obstacles, susceptibility to stress, and vulnerability to depression (Bandura et al., 1996). Furthermore, students with heightened academic self-efficacy tend to possess a broader array of career options, exhibit increased interest in their future prospects, engage in better preparation for various career trajectories, and demonstrate greater persistence and achievement in their academic pursuits (Betz & Hackett, 1986). Consequently, students with elevated self-efficacy are more inclined to set ambitious academic goals, opt for more challenging academic tasks, and harbour a more positive outlook regarding their prospects of success (Bandura, 1992; Locke & Latham, 1990; Zimmerman, 2008).

Test Anxiety

Anxiety, particularly in the form of test anxiety, emerges as a formidable factor that significantly impacts adolescents' academic achievements, academic self-efficacy, and university entrance exam self-efficacy (Mills et al., 2006). Bandura's conceptualization of self-efficacy posits that negative physiological conditions, such as anxiety and stress, are among the key determinants of this construct (Bandura, 1977, 1986). Test anxiety, prevalent in educational settings, encompasses an array of psychological, physiological, and behavioural responses that ensue from apprehension regarding potential failure in examinations or analogous evaluative situations (Sieber et al., 1979).

Extensive empirical research consistently demonstrates the inverse relationship between test anxiety and academic self-efficacy (Jain & Dowson, 2009; Roick & Ringeisen, 2017; Rouxel, 1999). Individuals experiencing test anxiety tend to perceive evaluative situations as threatening due to their fear of failure, resulting in heightened emotional reactions and arousal even at the slightest hint of potential failure (Sarason & Sarason, 1990).

Further, research shows that test anxiety and associated stress have a direct bearing on anxiety-related academic underachievement and academic insecurity (Zeidner, 1990). This issue is a prominent concern among students in Türkiye, as evidenced by studies reporting a negative correlation between test anxiety and academic self-efficacy (e.g., Yesilyurt, 2014). The repercussions of test anxiety extend to critical academic junctures, including university entrance exams (Erkan, 1991). Therefore, it is hypothesized that test anxiety significantly and adversely predicts both academic and university self-efficacy. An essential objective of this research is to present strategies for anxiety management, ultimately mitigating test-related stress throughout the intervention program.

Intervention Program

The intervention program draws from various psychological theories, including Self-Efficacy Theory, Social Learning Theory, Cognitive-Behavioural Theory (CBT), Positive Psychology, Mindfulness and Relaxation Techniques, Self-Determination Theory, and Narrative Psychology. By integrating elements from these theories, the program takes a holistic approach to enhancing self-esteem and self-efficacy beliefs, and reducing exam anxiety. The program equips students with a toolbox of strategies to manage stress, foster a positive mindset, and build resilience, ultimately improving their academic self-efficacy and preparing them to confidently face the challenges of university entrance exams.

Within the Turkish context, the university entrance exam assumes paramount importance, profoundly influencing the academic and vocational trajectories of students (Ekici, 2005). The persistent presence of anxiety and stress linked to this examination among high school students has been well-documented (Cüceloğlu, 1993; Şahin et al., 2006). While previous research in Türkiye has primarily focused on determinants of examination success, such as attitudes toward the exam and the type of high school attended (Arslan & Öztürk, 2001; Kelecioğlu, 2002), the domain of self-efficacy and its antecedents remains relatively underexplored.

This study aims to uncover the factors that predict university entrance exam self-efficacy in ninth and tenth-grade high school students in Türkiye. It sheds light on the areas requiring cultivation to improve student confidence and motivation for the pivotal university entrance exams, marking the culmination of their high school journey. Furthermore, this research unveils the relationship between self-efficacy and test anxiety while also providing students with practical tools for anxiety management. Ultimately, the intervention program seeks to reduce exam-related stress, enhance academic self-efficacy, and foster enduring academic success. This study thus serves to cultivate a more confident, motivated, and resilient cohort of high school students, poised to navigate the rigours of academic challenges and compelling university entrance examinations.

Method

Participants

Students' age, sex, parents' education level, and employment status were asked as demographic information. One hundred and one ninth-grade and 25 10th-grade students, totalling 126 high school students between the ages of 14 and 16 (M_{age} = 14.9, *SD* = 0.59, 60 females, 62 males, and 4 non-responders), participated in our intervention. Four students did not complete the pre-test and post-test due to not being present in that day's class. 17.9% of mothers and 35.2% of fathers had at least a bachelor-level education. The mean socio-economic status (SES) of participants ("How many books do you have in your house?" ranging from 1 [*1-5 books*] to 4 [*10-20 books*]) was lower-middle-class (*M* = 3.94, *SD* = .27). All participants gave their informed consent and were treated in accordance with the Declaration of Helsinki and local ethics guidelines. Ethical approvals were obtained for the study by Işık University, whereby a participant form was distributed to the participating students, and information was given about the study. Withdrawal forms were distributed to the families. Accordingly, three students stated that they did not want to participate in the study.

Settings

The intervention study was held in a high school located in Şile. Şile is one of the districts of Istanbul, which is 89 km away from the city centre. The SES of Şile is lower-middle-class, and the population of Sile is approximately 30,000 during winter. The high school is located on a hill with limited access to the centre of Şile and the city centre.

Procedure

The Intervention Program. This tailored intervention program consisted of 11 sessions, 45 minutes each. It was delivered by fourth-year undergraduate psychology students in the recruited high school classrooms and at hours permitted by the school. This intervention study draws upon established psychological theories to design a comprehensive program aimed at enhancing high school students' self-esteem, and self-efficacy beliefs, and reducing exam anxiety. The sessions are rooted in self-efficacy theory (Bandura, 1977), social learning theory (Bandura, 1986), cognitive-behavioural theory (Beck, 1976), positive psychology (Seligman & Csikszentmihalyi, 2000), mindfulness and relaxation techniques (Kabat-Zinn, 1990), self-determination theory (Deci & Ryan, 1985), and narrative psychology (McAdams, 1993). These theoretical underpinnings contribute to the development of a holistic intervention that merges psychological concepts, practical techniques, and real-life inspiration. By synthesizing these theories, this study aspires to offer a different understanding of how a multifaceted intervention can effectively enhance self-esteem, and self-efficacy, and reduce exam anxiety among high school students.

Session 1 – Introduction

- Introduction of psychology students who will facilitate the intervention program.
- Explanation of the program in detail and providing an agenda.
- Explanation of the goals of the program and why improving their self-efficacy is important.
- Distribution of informed consent and withdrawal forms for the parents.

Session 2 – Pre-test

- Explanation of informed consent and confidentiality.
- Pre-test administration.

Session 3 – Classroom discussion and goal-setting

- The third week focused on reflecting on academic achievement. The main discussion topic of the focus group was "*What would you like to become*?". Students then completed self-report questionnaires regarding their past academic achievements and the internal and external factors that helped them succeed. Their future goals, their belief about making the realization of their goals and the related internal and external factors, and expectations for the future and stereotypical expectations were also explored.

Session 4 – Modelling

- Presentation of success stories (e.g., the resilience of Einstein and Canan Dağdeviren).
- Discussion of resilience and self-efficacy.

Session 5 – Story writing

- Mental representation of the future ideal self.
- Students wrote their own success stories as if they were 20 years in the future and had become the person they wanted to be or achieved their academic goals.

Session 6 – Story drawing

- Students' success stories were returned with written positive and encouraging feedback (e.g., positive effort feedback).
- Strategic illustration to actualize ideal selves and enhance resilience, involving an imaginary exercise. Students depicted recent challenges, dedicating one-half of the paper to illustrating the difficulty and the other half to sketching two potential solutions.

Session 7 - Lecture

- Lecture on stress and exam anxiety.
- Overview of the basic components of cognitive behavioural therapy (CBT), including its approach and relaxation techniques to reduce anxiety and stress.

Session 8 – Video

- Students were shown videos about stress, happiness, and motivation.
- Discussion about the videos and the relatability of the depicted situations.
- Discussion about students' current beliefs about stress, happiness, and motivation after watching the videos.

Session 9 – Seminar

- Stress management seminar with a focus on bodily sensations by the principal investigator.
- Discussion on how stress affects physical symptoms and sleep.

Session 10 – Post test

- Post-test administration.

Session 11 – Closing

- Read inspirational stories.
- Shared thoughts and feedback about the intervention program.
- Discussed student's thoughts about the new beliefs, outlooks, and strategies.
- Free discussion about future plans.

Materials

Unless stated otherwise, all items ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's Alpha coefficients assessed all reliabilities.

General Self-Efficacy Scale. Academic self-efficacy was measured using the 7-item Academic Self-Efficacy Scale, which was created by Schwarzer and Jerusalem (1999 and adapted to Turkish by Yılmaz et al. (2007). Some of the items used are: "*I can accomplish what needs to be done in my school education*" and "*If I study hard, I can be successful in exams*".

The same scale items were adapted to measure self-efficacy in the context of the Turkish national university entrance exam. This was accomplished by instructing students to think about the university entrance exam while completing the questionnaire. Examples of items include: "*I am sure that I can handle the subjects taught for the university entrance exam*" and "*I can successfully complete all the studies for the university entrance exam*". The reliability coefficients of the Academic Self-Efficacy Scale and the Academic Self-Efficacy Scale within the context of the Turkish university entrance exam were found to be relatively high (Cronbach's α = .87 and .91, respectively).

Exam Anxiety Scale. Exam anxiety was measured using the Exam Anxiety Scale, which was developed by Spielberger (1980). Öner (1990) adapted the 20-item scale to Turkish; the short version of the scale, which consists of 5 items, was used in the study (Taylor & Deane, 2002). Examples of the items include "*I feel very nervous during exams*" and "*I panic during an important exam*". The scale demonstrated high reliability (α = .88).

Results

Preliminary Analysis

To explore the relationships between the variables,

preliminary analyses were conducted. Bivariate correlation analyses demonstrated relationships between selected variables.

Correlation Analysis

Bivariate correlations were conducted for the pre-test and post-test separately. As seen in Table 1, academic self-efficacy was significantly and positively associated with university entrance exam self-efficacy. Moreover, university self-efficacy was significantly negatively correlated with exam anxiety.

One-way Repeated Measures ANOVA Analyses

The effectiveness of the intervention program was assessed by one-way repeated measures ANOVA analyses to examine the effect of time on academic and university entrance exam self-efficacy and exam anxiety.

Academic Self-Efficacy. One-way repeated measures ANOVA analyses were used to examine the effect of intervention on self-efficacy change. The results revealed that there was a significant difference in academic self-efficacy scores between the two measuring points, $F(1, 119) = 9.616$, $p = .002$, $\eta^2 = .075$, indicating higher self-efficacy after the intervention. The mean for the pre-test was 3.18 (*SD* = 1.05), whereas it was 3.438 (*SD* = 0.721) for the post-test 3.569 (*SD* = 0.674).

University Entrance Exam Self-Efficacy. A one-way ANOVA test was used to investigate the effectiveness of the intervention program in terms of changes in the mean score of university entrance exam self-efficacy. The results revealed a significant main effect of time $F(1, 120) = 4.341$, $p = .039$, $\eta^2 = .35$, indicating higher levels of university entrance exam self-efficacy after the intervention (see Figure 1). The mean score for the pre-test was 3.714 (*SD* = 0.752), while the mean score for the post-test was 3.834 (*SD* = 0.797).

Table 1.

Correlation Table of Main Variables with Mean and Standard Deviation Scores According to Sex

	Girls Mean *(SD)*	Boys Mean *(SD)*	Mean *(SD)*	2	3
1. Pre-test Academic Self-Efficacy	3.62 (.79)	3.25 (.60)	3.58(.67)	.47**	-.09
2. Pre-test University Entrance Exam self-efficacy	3.75 (.75)	3.73 (.76)	3.74 (.75)	-	-.29**
3. Pre-test Exam Anxiety	3.32 (1.40)	2.74 (1.28)	3.03 (1.30)		-
1. Post-test Academic Self-Efficacy	3.74(.64)	3.43 (.67)	3.46 (.72)	.41**	-.15
2. Post-test University Entrance Exam Self-Efficacy	3.88 (.70)	3.79 (.88)	3.83 (.80)	-	-14
3. Post-test Exam Anxiety	3.01 (1.26)	2.59 (1.22)	2.79(1.25)		-

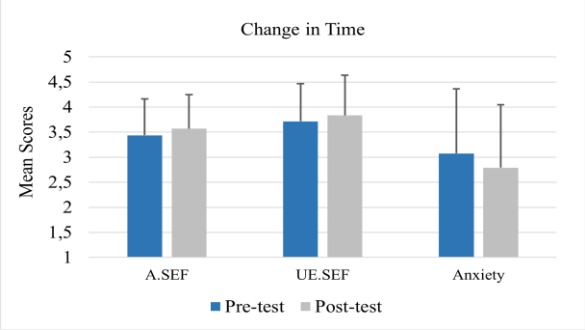
Note., *$p < .01$, **$p < .001$. $N = 125$

Exam Anxiety

A one-way ANOVA was performed to compare the effect of intervention on exam anxiety scores. It revealed that there was a statistically significant difference in mean exam anxiety score between two measuring points $F(1, 117) = 8.747$, $p = .004$, $\eta^2 = .70$, indicating a lower level of exam anxiety after the intervention (see Figure 1). The mean exam anxiety score for the pre-test was 3.075 (SD = 1.285), while the mean exam anxiety score for the post-test was 2.792 (SD = 1.251).

Figure 1.

Mean scores and standard deviations for each variable were plotted in black for the pre-test and in grey for the post-test



Note. A.SEF = Academic Self-Efficacy, UE.SEF= University Entrance Exam Self-Efficacy

Discussion

The primary objectives of this study were to enhance students' self-efficacy beliefs, fortify academic and career self-concepts, nurture hope for the future, stimulate goal motivation, and foster psychological well-being. Concurrently, this study aimed to alleviate the burden of stress, general anxiety, and exam-specific anxiety that is often experienced by students. The intervention program was designed around the core principles of elevating participants' self-efficacy while simultaneously mitigating anxiety.

The Power of School-Based Interventions

Previous studies established the ability of school-based interventions to enhance students' self-efficacy (Jonson-Reid, 2005; Shoshani & Steinmetz, 2013). This finding is confirmed through the observed significant improvements in key areas following this study's intervention. Academic self-efficacy, in particular, experienced a notable increase from pre-test to post-test. This result highlights the effectiveness of this intervention program in boosting students' belief in their academic capabilities. Moreover, university entrance exam self-efficacy also showed a significant enhancement, reflecting the intervention program's success in improving students' confidence in excelling in university entrance exams.

Anxiety Reduction and Positive Feedback

Beyond the quantitative measurements, open discussions with participants provided invaluable qualitative insights. During these sessions, participants shared their thoughts, accomplishments, dreams, and obstacles. The positive feedback and future-oriented discussions created a supportive atmosphere that contributed to the intervention's overall success. Participants found solace in feedback on their creative work and success stories, highlighting the program's impact on their personal growth. Testimonials from participants further reinforced this study's findings. For example, one participant expressed that they had learned to reduce their anxiety, making it easier to evaluate their achievements. Another participant noted a significant boost in their confidence and abilities, a testament to the positive impact of the intervention program.

Effective Reduction of Exam-Specific Anxiety

A substantial decrease in students' exam-specific anxiety was observed following the completion of the intervention program. Test anxiety is a pervasive issue among school children and adolescents, often impeding their academic performance. Unfortunately, most schools lack the resources to address this problem effectively (Yesilyurt, 2014). However, the results demonstrate that Cognitive Behavioral Therapy (CBT) intervention techniques, including workshops on stress and relaxation, can be highly effective in reducing anxiety among children and adolescents. This is in line with existing research showing the effectiveness of CBT interventions in anxiety reduction (Barrett et al., 1996; Kendall, 1994; Yeo et al., 2015). Participant feedback emphasized

the benefits of anxiety reduction workshops, which provided insights into stress, exam anxiety, and motivation.

The Complex Relationship Between Self-Efficacy and Anxiety

This study explored the intricate relationship between self-efficacy and anxiety, particularly focusing on academic self-efficacy, university entrance exam self-efficacy, and exam-related anxiety. While it is not surprising that an increase in self-efficacy is associated with a decrease in anxiety, our study added depth to this understanding. Interestingly, our findings showed a significant negative effect of exam anxiety on students' future university entrance exam self-efficacy. This highlights a crucial point: exam anxiety can negatively affect students' academic self-efficacy and motivation from the early years of high school.

Implications for Educators

The implications of our study are far-reaching and offer valuable insights for educators. Firstly, we have demonstrated that intervention programs can effectively increase self-efficacy in high school students, which can have a positive impact on their academic performance and overall well-being. Although the effect size was small, the findings suggest that there is clinical utility in enhancing self-efficacy among high school students.

Moreover, the results shed light on how individual and school-related factors influence academic self-efficacy. Notably, individual factors appear to be more determinant than others. This implies that educators should focus on developing activities and lesson content that foster motivational elements such as self-efficacy. By doing so, they can enhance students' engagement and sense of belonging, which have been shown to positively affect academic development and self-confidence. Students who feel a strong sense of belonging to their school tend to be more interested in lessons, experience less boredom, and exhibit higher motivation, academic self-efficacy, and ultimately, greater success (Fan & Williams, 2010; Goodenow, 1992; Sarı, 2013).

Contributing to the National Literature and Future Directions

This study also contributes to the national literature by examining the determinants of self-efficacy towards university entrance exams, academic self-efficacy, and how these self-beliefs can be positively changed within school settings. Prior research in the Turkish educational context has primarily focused on factors such as attending preparatory courses for university entrance exams, the type of high school attended, and anxiety (Kelecioğlu, 2002, Kutlu, 2001; Morgil et al., 2000). Our study fills a gap by investigating the predictors of self-efficacy concepts and demonstrating how these beliefs can be improved in a Turkish high school setting. Importantly, our findings reveal that short-term intervention programs, even as brief as one hour per week, can lead to positive changes in students.

Limitations and Future Directions

Despite the valuable insights gained from this study, there are certain limitations to acknowledge. First, the fact that the intervention program was implemented in a single high school restricts the generalizability of the findings to other institutions in Türkiye. Furthermore, the sample was drawn from a science high school, where student success tends to be higher than in other high school types. This raises the possibility that students in such high-achieving schools may already possess greater academic motivation and self-efficacy. Therefore, the factors influencing self-efficacy and related concepts may differ in other types of high schools.

Additionally, this study primarily involved ninth-grade students, and we were unable to include grade and age variables due to low variance. The dynamic nature of the self-efficacy concept suggests that predictors may change over the course of high school education. Future studies should consider including diverse student groups from various high school types and age groups to provide a more comprehensive understanding.

Furthermore, the absence of a control group

in the intervention program limits our ability to isolate the effects of the program itself. While pre-test and post-test data, along with student evaluations and feedback, indicated positive changes, future research should employ control groups to measure the direct impact of the intervention. Longitudinal studies with multiple measurement points between pre-test and post-test could also capture non-linear changes over time more effectively.

Lastly, future research should aim to construct a more comprehensive model to examine the predictors of self-efficacy concepts. This could involve collecting data from additional sources such as teachers and parents to gain a more holistic perspective. Previous studies have shown that teachers' academic support positively influences students' motivation and self-efficacy (Tschannen-Moran & Barr, 2004; Yıldırım, 2000), underscoring the importance of including educator perspectives.

Conclusion

In conclusion, this study has made significant strides in understanding the dynamics of self-efficacy and anxiety among high school students. This intervention program successfully increased self-efficacy while reducing exam-related anxiety, providing a valuable resource for educators seeking to improve students' well-being and academic performance. Despite some limitations, our findings have implications for educators, highlighting the importance of fostering self-efficacy and addressing anxiety early in high school. As we continue to explore these complex relationships, further research will undoubtedly contribute to our understanding of how to best support students on their educational journey. Furthermore, the significance of this research goes beyond the borders of our study context. While the intervention program was conducted in a specific high school in Türkiye, the principles and strategies employed can be adapted and implemented in various educational settings worldwide. The universality of issues related to self-efficacy and anxiety among students makes our findings relevant to educators globally. By recognizing the pivotal role of self-efficacy and anxiety management in students' academic lives, educators across different cultural and educational systems can design targeted interventions tailored to their specific contexts.

Additionally, future research endeavours should aim to investigate the long-term impact of interventions like the one presented in this study. Understanding whether the effects on self-efficacy and anxiety persist beyond the high school years and into college or career settings can provide valuable insights into the lasting benefits of early interventions.

In summary, this study contributes to the body of knowledge surrounding self-efficacy, anxiety, and the role of educators in shaping students' beliefs and emotional well-being. It not only offers practical implications for educators but also paves the way for broader discussions on enhancing the educational experiences of high school students worldwide. As we continue to refine our understanding of these dynamics, we can work towards creating more supportive and empowering educational environments for the leaders of tomorrow.

Conflicts of Interest

No competing interests or financial disclosures are indicated by the author.

CRediT

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References

Arslan, A. (2012). İlköğretim öğrencilerinin öz yeterlik inancı kaynaklarının öğrenme ve performansla ilgili öz yeterlik inancını yordama gücü. *Kuram ve Uygulamada Eğitim Bilimleri*, *12*(3), 1907–1920. https://toad.halileksi.net/sites/default/files/pdf/oz-yeterlik-inanci-kaynaklarini-belirleme-olcegi-toad.pdf

Arslan, A. (2012). Predictive Power of the Sources of Primary School Students' Self-Efficacy Beliefs on Their Self-Efficacy Beliefs for Learning and Performance. *Educational Sciences: Theory and Practice*, *12*(3), 1915–1920.

Arslan, M., & Öztürk, A. (2001). Özel Dershanelerin Üniversite Sınavını İlk Girişte Kazanamayan Öğrencilere ÖSS'deki Puan Getirişi. *Eğitim Araştırmaları Dergisi*, *5,* 15–20.

Bandura, A. (1986). Social Foundations of Thought and Action: A Social Cognitive Theory. Prentice Hall.

Bandura, A. (1992). Exercise of personal agency through the self-efficacy mechanism. In R. Schwarzer (Ed.), Self-efficacy: Thought control of action (pp. 3–38). Hemisphere Publishing Corp.

Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist, 28*(2), 117–148. https://doi.org/10.1207/s15326985ep2802_3

Bandura, A. (1995). Self-efficacy in changing societies. Cambridge University Press. https://doi.org/10.1017/CBO9780511527692

Bandura, A. (1997). *Self-efficacy: The exercise of control. Freeman.*

Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (1996). Multifaceted impact of self-efficacy beliefs on academic functioning. *Child Development, 67*(3), 1206–1222. https://doi.org/10.1111/j.1467-8624.1996.tb01791.x

Barrett, P. M., Dadds, M. R., & Rapee, R. M. (1996). Family treatment of childhood anxiety: a controlled trial. Journal of Consulting and *Clinical Psychology, 64*(2), 333. https://doi.org/10.1037/0022-006X.64.2.333

Betz, N. E., & Hackett, G. (1986). Applications of self-efficacy theory to understanding career choice behavior. *Journal of Social and Clinical Psychology, 4*(3), 279–289. https://doi.org/10.1521/jscp.1986.4.3.279

Bong, M., & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really? *Educational Psychology Review, 15*(1), 1–40. https://doi.org/10.1023/A:1021302408382

Chen, X., Rubin, K. H., Li, B. S., & Li, D. (1999). Adolescent outcomes of social functioning in Chinese children. *International Journal of Behavioral Development, 23*(1), 199–223. https://doi.org/10.1080/016502599384071

Cüceloğlu, D. (1993). İnsan ve Davranışı: Psikolojinin Temel Kavramları. Remzi Kitabevi.

Eccles, J. S., & Roeser, R. W. (2011). Schools as developmental contexts during adolescence. *Journal of Research on Adolescence, 21*(1), 225–241. https://doi.org/10.1111/j.1532-7795.2010.00725.x

Ekici, G. (2005). Lise Öğrencilerinin Çevre Eğitimine Yönelik Tutumlarının İncelenmesi. *Eurasian Journal of Educational Research (EJER), 18*, 71–83.

Ergene, T. (2003). Effective interventions on test anxiety reduction: A meta-analysis. *School Psychology International, 24*(3), 313–328. https://doi.org/10.1177/01430343030243004

Fan, W., & Williams, C. M. (2010). The effects of parental involvement on students' academic self-efficacy, engagement and intrinsic motivation. *Educational Psychology, 30*(1), 53–74. https://doi.org/10.1080/01443410903353302

Goodenow, C. (1992). Strengthening the links between educational psychology and the study of social contexts. *Educational Psychologist, 27*(2), 177–196. https://doi.org/10.1207/s15326985ep2702_4

Hodges, C. B., & Murphy, P. F. (2009). Sources of self-efficacy beliefs of students in a technology-intensive asynchronous college algebra course. *The Internet and Higher Education, 12*(2), 93–97. https://doi.org/10.1016/j.iheduc.2009.06.005

Jerusalem, M., & Schwarzer, R. (1999). Skalen zur Erfassung von Lehrer-und Schülermerkmalen. In Dokumentation der psychometrischen Verfahren im Rahmen der Wissenschaftlichen Begleitung des Modellversuchs Selbstwirksame Schulen. Berlin: Freie Universität Berlin.

Jonson-Reid, M., Davis, L., Saunders, J., Williams, T., & Williams, J. H. (2005). Academic Self-Efficacy among African American Youths: Implications for School Social Work Practice. *Children & Schools, 27*(1), 5–14. https://doi.org/10.1093/cs/27.1.5

Kelecioğlu, H. (2002). Ortaöğretim öğrencilerinin üniversiteye giriş sınavları ve sınavın öğrenimlerine etkisi hakkındaki görüşleri. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 23*(23), 135–144.

Kendall, P.C. (1994). Treating anxiety disorders in youth: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 62*(1), 100–101. https://doi.org/10.1037/0022-006X.62.1.100

Kutlu, Ö. (2001). Ergenlerin üniversite sınavına ilişkin kaygıları. *Eğitim ve Bilim Dergisi, 26*(121), 12–23.

Locke, E.A., & Latham, G.P. (1990). A theory of goal setting and task performance. Prentice-Hall, Inc.

Marsh, H. W., & Martin, A. J. (2011). Academic self-concept and academic achievement: Relations and causal ordering. *British Journal of Educational Psychology, 81*(1), 59–77. https://doi.org/10.1348/000709910X503501

Mills, N., Pajares, F., & Herron, C. (2006). A reevaluation of the role of anxiety: Self-efficacy, anxiety, and their relation to reading and listening proficiency. *Foreign Language Annals, 39*(2), 276–295. https://doi.org/10.1111/j.1944-9720.2006.tb02266.x

Mills, N., Pajares, F., & Herron, C. (2007). Self-efficacy of college intermediate French students: Relation to achievement and motivation. *Language Learning, 57*(3), 417–442. https://doi.org/10.1111/j.1467-9922.2007.00421.x

Morgil, F. İ., Yilmaz, A., Seçken, N., & Erökten, S. (2000). Üniversiteye giriş sınavında özel dershaneler ve özdebir tarafından uygulanan öss deneme sınavlarının öğrenci başarısına katkısının ölçülmesi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 19*(19), 96–103.

Öner, N. (1990). Sınav kaygısı envanteri el kitabı. Yükseköğretimde Rehberliği Yayma Vakfı Yayını.

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research, 66*(4), 543–578. https://doi.org/10.3102/00346543066004543

Schunk, D. H., & Pajares, F. (2001). The Development of Academic Self-Efficacy. In A. Wigfield, & J. S. Eccles (Eds.), Development of Achievement Motivation (pp. 15- 31). Academic Press. https://doi.org/10.1016/B978-012750053-9/50003-6

Patrick, H., Hicks, L., & Ryan, A.M. (1997). Relations of perceived social efficacy and social goal pursuit to self-efficacy for academic work. *Journal of Early Adolescence, 17*(2), 109–128. https://doi.org/10.1177/0272431697017002001

Putwain, D. W., & Daly, A. L. (2013). Do clusters of test anxiety and academic buoyancy differentially predict academic performance? *Learning and Individual Differences, 27*, 157–162. https://doi.org/10.1016/j.lindif.2013.07.010

Putwain, D., Sander, P., & Larkin, D. (2013). Academic self-efficacy in study-related skills and behaviours: Relations with learning-related emotions and academic success. *British Journal of Educational Psychology, 83*(4), 633–650. https://doi.org/10.1111/j.2044-8279.2012.02084.x

Sarason, I. G., & Sarason, B. R. (1990). Test anxiety. In H. Leitenberg (Ed.), Handbook of social and evaluation anxiety (pp. 475–495). Plenum Press. https://doi.org/10.1007/978-1-4899-2504-6_16

Sarıer, Y. (2016). Türkiye'de öğrencilerin akademik başarısını etkileyen faktörler: Bir meta-analiz çalışması. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 31*(3), 609–627. https://doi.org/10.16986/huje.2016015868

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Pychologist, 26*(3-4), 207–231. https://doi.org/10.1080/00461520.1991.9653133

Schwarzer, R. (2014). Self-efficacy: Thought control of action. Taylor & Francis.

Schwarzer, R., & Jerusalem, M. (1999). Skalen zur erfassung von Lehrer-und schülermerkmalen. Dokumentation der psychometrischen Verfahren im Rahmen der Wissenschaftlichen Begleitung des Modellversuchs Selbstwirksame Schulen.

Shoshani, A., & Steinmetz, S. (2013). Positive Psychology at School: A School-Based Intervention to Promote Adolescents' Mental Health and Well-Being. *Journal of Happiness Studies, 15*(6), 1289–1311. https://doi.org/10.1007/s10902-013-9476-1

Sieber, J. E., O'Neil Jr, H. F., & Tobias, S. (2013). Anxiety, learning, and instruction. Routledge.

Spielberger, C.D. (1980). Preliminary professional manual for the Test Anxiety Inventory. *Palo Alo Psychol1980*, *22*, 133-138.

Taylor, J., & Deane, F. P. (2002). Development of a short form of the Test Anxiety Inventory (TAI*). The Journal of General Psychology, 129*(2), 127–136. https://doi.org/10.1080/00221300209603133

Tschannen-Moran, M., & Barr, M. (2004). Fostering student learning: The relationship of collective teacher efficacy and student achievement. *Leadership and Policy in Schools, 3*(3), 189–209. https://doi.org/10.1080/15700760490503706

Yeo, L. S., Goh, V. G., & Liem, G. A. D. (2015). School-Based Intervention for Test Anxiety. *Child & Youth Care Forum, 45*(1), 1–17. https://doi.org/10.1007/s10566-015-9314-1

Yesilyurt, E. (2014). Academic Locus of Control, Tendencies Towards Academic Dishonesty and Test Anxiety Levels as the Predictors of Academic Self-Efficacy. *Educational Sciences: Theory and Practice, 14*(5), 1945–1956.

Yılmaz, M., Gürçay, D., & Ekici, G. (2007). Akademik Özyeterlik Ölçeğinin Türkçe'ye Uyarlanması. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi, 33*(33), 253–259.

Zeidner, M. (1990). Does test anxiety bias scholastic aptitude test performance by gender and sociocultural group?. *Journal of Personality Assessment, 55*(1-2), 145–160. https://doi.org/10.1080/00223891.1990.9674054

Zimmerman, B.J. (2008). Goal setting: A key proactive source of academic self-regulation. In D.H. Schunk, & B.J. Zimmerman (Eds.), Motivation and self-regulated learning: Theory, research, and applications (pp. 267–295). Lawrence Erlbaum Associates.