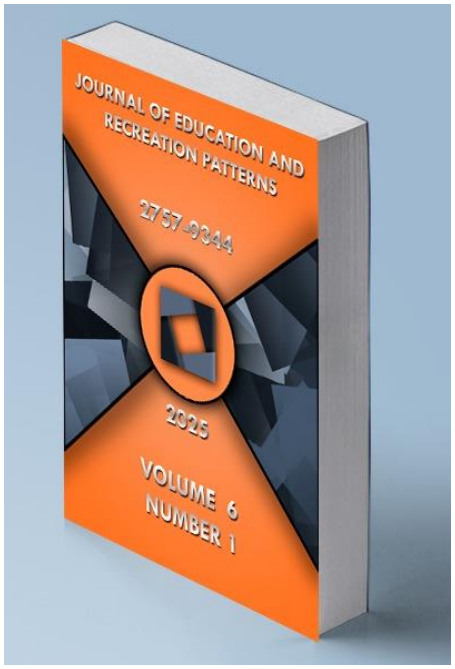

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Motivation in University Students Participating in Regular Physical Activity: Relationship with Self-Compassion and Psychological Resilience

Yunus Sinan BİRİCİK[1], Mehmet Haluk SİVRİKAYA[2], Vahdet ALAEDDINOGLU[3]

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[1] Atatürk Üniversitesi, Spor Bilimleri Fakültesi, Erzurum, Türkiye, sinan.biricik@atauni.edu.tr, https://orcid.org/0000-0002-8579-9514

[2] Atatürk Üniversitesi, Spor Bilimleri Fakültesi, Erzurum, Türkiye, haluk@atauni.edu.tr, https://orcid.org/0000-0001-8268-3391

[2] Atatürk Üniversitesi, Horasan Meslek Yüksekokulu, Erzurum, Türkiye, v.alaeddinoglu@atauni.edu.tr, https://orcid.org/0000-0001-8432-0105

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Yunus Sinan Biricik[1], Mehmet Haluk Sivrikaya[2], Vahdet Alaeddinoğlu[3]

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ABSTRACT

Regular physical activity is known to have many health benefits including cardiovascular health, weight control, improved metabolism, mental health, immune system strengthening and social bonding. Understanding how academic motivation is linked to self-compassion and psychological resilience in university students who engage in regular physical activity may indicate an effective way to increase students' motivation. Therefore, the aim of the study was to obtain the results of the relationship between academic motivation levels and self-compassion and psychological resilience levels of university students who regularly participate in physical activity. In this cross-sectional study, the relationship between the three variables was evaluated. In this context, general and relational survey models were utilized. Measurements of these three constructs were completed with 812 students (521 males, 291 females) studying at Atatürk University who regularly participated in various physical activities (swimming, cycling, fitness or gym exercises, weight lifting, astroturf, hiking, etc.) for at least 150 minutes per week. Academic Motivation, Self-Compassion and Psychological Resilience scales were used in the study. Correlation and regression analysis were used to analyze the data. Significant relationships were found between academic motivation and psychological resilience and self-compassion. Self-compassion and psychological resilience affected intrinsic motivation at the level of .04, extrinsic motivation at the level of .07 and amotivation at the level of .06. In this context, both self-compassion and psychological resilience were identified as significant predictors for all sub-dimension types of academic motivation. In conclusion, this study found that higher levels of motivation were associated with greater feelings of self-compassion and psychological resilience.

Keywords: Academic Motivation, Physical Activity, Psychological Resilience, Self-Compassion.

INTRODUCTION

Regular physical activity provides numerous benefits for various age groups and populations. Regular participation in physical activity has been associated with improved cardiovascular fitness, increased lean mass, improved blood lipid profile, reduced body adiposity and improved psychosocial well-being (Riddell & Iscoe, 2006). Regular physical activity has also been shown to have both physical and mental health benefits, emphasizing its importance for the overall well-being of individuals (Donkor et al., 2021). Engaging in physical activity is linked to minimizing stress, increasing well-being and improving quality of life (Shantakumar et al., 2022; Loprinzi & Cardinal, 2011). Furthermore, regular physical activity plays an important role in mental health. Studies have shown that regular exercise can help reduce depressive symptoms in adults (Kim & Cho, 2021).

Academic motivation is an important factor affecting the performance and success of university students. Academic motivation is shown as a driving force that motivates students to continue higher education and obtain a diploma (Ghorbanzadeh et al., 2018). It has been explained that academic motivation predicts students' academic achievement, learning performance, engagement, attitude, and goal persistence (Hu & Luo, 2021). On the other hand, it shows that participation in regular physical activity can increase academic achievement on academic motivation (Howie & Pate, 2012). The effect of regular physical activity on academic motivation is an important factor that can support students' learning success. Research shows that physical activity improves academic performance and affects students' academic behavior, e.g. study time, and studies have shown that students who participate in 75-150 minutes of aerobic activity each week have increased academic performance and improved academic behavior and cognitive functioning (e.g. concentration) (Hassel et al., 2015).

On the other hand, the relationships between academic motivation, self-compassion and resilience are a multifaceted interaction that has been extensively researched. Academic motivation is crucial for students' engagement and success and has been associated with psychological resilience (Asfahani, 2024). Research has shown that intrinsic motivation significantly contributes to posttraumatic recovery among students and resilience plays a mediating role in this relationship (Yun et al., 2020). Self-compassion and resilience are another important factor strongly linked (Sotiropoulou et al., 2023). Studies have shown that individuals with self-compassion show higher levels of resilience, lower stress, and a greater sense of life meaning (Sotiropoulou et al., 2023). Research also emphasizes the role of academic resilience in improving students' ability to succeed in challenging academic environments (Yang & Wang, 2022). Moreover, the mediating effect of psychological resilience in the relationship between academic motivation and recovery from adverse situations has been underlined, which points to the importance of psychological resilience in promoting positive outcomes (Yun et al., 2020). In addition, intrinsic motivation and psychological resilience have been identified as protective factors against the stress and challenges faced by students and their role in increasing academic achievement has been emphasized (Trigueros et al., 2020). Moreover, the relationship between psychological resilience and academic performance has also been proven and psychological resilience plays an important role in contributing to students' success (Bai et al., 2022).

In conclusion, academic motivation is a multifaceted construct that significantly influences students' learning outcomes, engagement, and overall success in university settings. Understanding the impact of regular participation in physical activity on academic motivation can assist educators and institutions in creating environments that promote positive academic outcomes that can significantly impact motivation, resilience, academic achievement, and mental health among students. Therefore, the current study aimed to examine the specific

associations of academic motivation levels with self-compassion and psychological resilience in college students who regularly participate in physical activity.

In this context, the following research questions are sought to be answered.

1.What is the relationship between academic motivation, self-compassion and psychological resilience in university students who regularly participate in physical activity?

2.What is the relationship between self-compassion and psychological resilience for types of academic motivation in university students who regularly participate in physical activity?

METHOD

Research Design

In this cross-sectional study aiming to determine the academic motivation levels of university students who regularly participate in physical activities and its relationship with self-compassion and psychological resilience, the relationship between the three variables was evaluated. A cross-sectional study is a type of research conducted by collecting data on a group of individuals at one point in time. Such studies are used to determine the prevalence of certain characteristics (e.g., attitudes, behaviors, health status, etc.) in a population. Rather than establishing causal relationships, they aim to identify associations between variables (Büyüköztürk et al., 2022). In this regard, the descriptive and correlational survey models were used in the study. The correlational survey model is a model that aims to determine whether there is a change between two or more variables and, if so, the degree of this change. The goal is to determine if there is a relationship (correlation) between the variables.

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Population and Sample of the Study

Purposive sampling method was used in this study. In purposive sampling method, the researcher selects the units that are most suitable for the purpose of the research from the universe according to certain criteria (Büyüköztürk et al., 2022).

The measurements of these three constructs were completed with 812 students (mean age=21.67±7.68 years) (521 males, 291 females) from Atatürk University (mean age=21.67±7.68 years) who regularly participated in various physical activities (swimming, cycling, fitness or gym exercises, weightlifting, artificial turf, walking, etc.) for at least 150 minutes per week. Participants agreed to participate in regular physical activities for at least 150 minutes per week. Verbal consent was also obtained from the participants.

Data Collection Tools

In order to collect data in the study, a personal information form developed by the researchers, including the variables of gender, age, participation in physical activity in free time, type of physical activity, and duration of physical activity, was used. In addition, Academic Motivation, Self-Compassion and Psychological Resilience scales were used.

Academic Motivation Scale (AMS): The scale developed by Vallerand et al. (1989) and adapted to Turkish culture by Karagüven (2012) aims to measure the academic motivation levels of university students. The scale is Likert-type and consists of 28 questions. It has a total

of 7 dimensions including 3 intrinsic motivation, 3 extrinsic motivation and one amotivation dimension. For each item of the scale, the participants are expected to choose one of the 7 options ranging from "1=Not at all" to "7=Completely". As a result of the internal consistency test conducted to test the reliability of the AMS, Cronbach's alpha values between .67 and .87 were obtained.

Self-Compassion Scale (SCS): The Self-Compassion Scale Short Form, developed by Neff (2003) and adapted to Turkish culture by Yıldırım and Sarı (2018), consists of 11 items. In order to examine the psychometric properties of the scale, construct validity, criterion-related validity, internal consistency coefficient and test-retest reliability were examined. As a result of EFA, it was seen that the scale showed a single-factor structure and this factor consisted of two subcomponents. The factor structure of the scale was confirmed in the CFA. The internal consistency coefficient of the scale was calculated as .75.

Brief Psychological Resilience Scale (BPRS): The brief psychological resilience scale developed by Smith et al. (2008) was adapted to Turkish culture by Doğan (2015). It is a 6-item, self-report style measurement tool. The CSRS is a 5-point Likert scale. It has an answer key in the form of "Not at all appropriate" (1), "Not appropriate" (2), "Somewhat appropriate" (3), "Appropriate" (4), "Fully appropriate" (5). Items 2, 4, and 6 are reverse coded. High scores obtained after the reverse coded items are translated indicate a high level of psychological resilience. Doğan (2015) found the internal consistency coefficient of the BPRS to be .83. In our study, it showed similar reliability (Cronbach's a = .82).

Data Collection Process and Ethical Procedure

First of all, the participants who regularly participated in various physical activities (walking, running, swimming, cycling, cycling, fitness, various sports branches, etc.) at Atatürk University (3-4 times a week for at least 150 minutes) were given detailed information about the purpose of the study and how to fill out the data collection tool. The permission of the participants who volunteered to participate in the study was obtained with the help of an informed consent form and applied face-to-face. Ethics committee approval was obtained from Atatürk University Ethics Committee Presidency with the number E-70400699-000-2200435358 / 2023. In addition, our study was supported by Atatürk University Scientific Research Projects Coordination Unit (SRP) (SBA-2023-12491).

Data Analysis

Descriptive statistical analyses were conducted to obtain demographic information about the participants. To assess the normality of the data distribution, skewness and kurtosis values were examined. Additionally, Cronbach's alpha coefficients were calculated to assess the internal consistency of the measurement tools used in the study. Since the data showed a normal distribution, parametric tests were preferred in the analyses. First, the relationships between academic motivation (i.e., intrinsic motivation, extrinsic motivation, and amotivation), self-compassion, and resilience were examined using the Pearson product-moment correlation coefficient, which is appropriate for normally distributed and continuous variables. Second, regression analysis was conducted to determine whether self-compassion and resilience independently predict each type of academic motivation. Regression analysis is also based on the assumption of normality and linearity, and therefore was deemed suitable for the data. All analyses were carried out using the SPSS 28 (IBM SPSS Corp., Armonk, NY, USA) statistical software.

FINDINGS

Means of academic motivation, self-compassion and psychological resilience levels of university students participating in regular physical activities.

Table 1

Averages for the Scales

Scale	n	Min.	Mak.	X_{avrg}	SD.
Academic Motivation	812	1	6.98	5.11	.121
Self Compassion	812	1	4.87	2.93	.267
Psychological Resilience	812	1	4.96	3.49	.359

The mean score of the students who participated in the study from the academic motivation scale is 5.11+.121. It is 2.93+.267 for self-compassion and 3.49+.359 for psychological resilience. In general, students have high levels of academic motivation and psychological resilience.

Table 2

Relationships between Academic Motivation, Self-Compassion and Resilience

		M	Sd.	1	2	3	4	5
1	Intrinsic Motivation	5.63	0.53	-				
2	Extrinsic Motivation	6.22	0.36	0.01	-			
3	Amotivation	3,49	1.01	0.05	1.17	-		
4	Self Compassion	2.93	0.27	0.03*	0.04*	0.21	-	
5	Psychological Resilience	3.49	0.36	0.02*	0.03*	0.75	0.05*	-

*p<.05

As a result of the correlation analysis, significant positive relationships were found between intrinsic motivation and extrinsic motivation, which are types of academic motivation, and self-compassion and psychological resilience. Regression analysis was conducted to examine these relationships in more detail. Academic motivation types were analyzed as outcome variables, while self-compassion and psychological resilience were analyzed as predictor variables (Table 3).

Table 3

Regression: Self-Compassion and Psychological Resilience for Types of Academic Motivation in Students Participating in Regular Physical Activity

Intrinsic Motivation					
	B	SE_B	β	95%CI (L, U)	
Self-Compassion	0.45*	0.17	-0.07	-0.51	0.15
Psychological Resilience	0.71**	0.19	0.25	0.20	1.21
Δ Adj. R^2			0.04		
Extrinsic Motivation					
	B	SE_B	β	95%CI (L, U)	
Self-Compassion	0.48*	0.19	-0.20	-0.82	-0.11
Psychological Resilience	0.59*	0.31	0.18	0.12	1.18
Δ Adj. R^2			0.07		
Amotivation					
	B	SE_B	β	95%CI (L, U)	
Self-Compassion	-0.41*	0.29	-0.15	-0.89	-0.03
Psychological Resilience	-0.54*	0.28	-0.19	-1.18	-0.08
Δ Adj. R^2			0.06		

As a result of the regression, self-compassion and psychological resilience affected intrinsic motivation by .04, extrinsic motivation by .07 and amotivation by .06. In this context, both self-compassion and psychological resilience were identified as significant predictors for all sub-dimension types of academic motivation.

DISCUSSION

In this study, a model that can contribute to the academic and social lives of university students through participation in regular physical activities and enable students to be involved in a more effective performance process was evaluated. The study was conducted to determine the relationship between academic motivation, self-compassion and psychological resilience levels of university students who regularly participate in physical activities. The study shows that students who regularly participate in physical activities have high levels of academic motivation and that academic motivation levels have a positive effect on self-compassion and psychological resilience, and psychological resilience has a positive effect on self-compassion. In addition, both self-compassion and psychological resilience were determined as predictors of academic motivation (intrinsic and extrinsic).

Firstly, students who participated in regular physical activities had higher levels of academic motivation. Regular physical activity has been a topic of interest in academic research due to its potential impact on academic motivation and performance. Several studies have examined the relationship between physical activity and academic outcomes, shedding light on the various mechanisms through which participation in physical activities can affect students' motivation and achievement levels. Kayani et al. (2018) emphasized the mediating effects of self-esteem and depression in the relationship between physical activity and academic

performance, highlighting the importance of psychological factors in this relationship. Similarly, Xiang (2023) discussed how physical activity can increase working memory, information processing speed, physical health, and mental state, and ultimately lead to improved learning motivation and academic performance. These findings suggest a multifaceted link between physical activity, psychological well-being, and academic motivation. Moreover, the study by Keeley and Fox (2009) focused on the impact of physical activity and fitness on academic achievement and cognitive performance in children and highlighted the positive effects of physical activity on cognitive functions necessary for academic success. Similarly, Baños et al. (2023) found that academic motivation improved after implementing an integrated physical activity program in various subjects, demonstrating the positive impact of physical activity on students' motivation levels. These results show the impact of regular participation in physical activity on academic motivation. Therefore, physical activity can indirectly increase students' academic motivation by improving cognitive functions, facilitating their learning process and academic engagement.

Secondly, in our study, significant positive relationships were found between academic motivation (intrinsic - extrinsic motivation) and self-compassion and psychological resilience. Studies have found that self-compassion is positively related to academic motivation, suggesting that being kind to oneself can increase motivation (Shahid & Farhan, 2022). In addition, self-compassion has been found to be an important factor in reducing academic stress, especially when supported by family dynamics (Pertiwi, 2024). In her study, Fleming (2021) found that self-compassion created a satisfactory level of variance on life satisfaction levels. It was also emphasized that psychological resilience is an important intrinsic factor in academic motivation (Asfahani, 2024). Research has shown that psychological resilience is necessary for academic success and acts as a protective factor against burnout and stress (Chen et al., 2022). Psychological resilience has been found to mediate the relationship between academic motivation and posttraumatic growth, which points to its importance in students' ability to succeed despite adversity (Yun et al., 2020). There are also studies showing that psychological resilience has positive results on psychological adjustment (Biricik et al., 2023). Academic resilience has been associated with a variety of psychological and educational outcomes, such as enjoyment of school, class participation, and self-esteem (Martin & Marsh, 2006). While academic motivation serves as a driving force for university students, self-compassion and psychological resilience can be considered as supportive mechanisms that provide protection against stress that increases motivation. Understanding these concepts and nurturing them through physical activity may lead to increased social and academic success of university students.

Third, psychological resilience and self-compassion were found to be significant predictors of academic motivation type, except that psychological resilience predicted intrinsic motivation. Kotera et al. (2021) emphasize the role of self-compassion in increasing motivation by showing how it guides the path from extrinsic to intrinsic motivation among students. In addition, Kotera et al. (2022a, 2022b) and Kotera et al. (2021) examine the relationships between self-compassion, resilience, and intrinsic motivation, suggesting that self-compassion plays an important role in enhancing mental well-being and intrinsic motivation among college students. Trigueros et al. (2020) reveal that intrinsic motivation and resilience act as protective factors against the stress and challenges faced by students, emphasizing the importance of these psychological resources in enhancing academic achievement. Similarly, Park et al. (2023) emphasize that psychological resilience is a crucial factor in reducing stress and increasing academic motivation. These findings suggest that students who regularly participate in physical activities can use the experiences they gain through sports to increase their academic motivation, self-compassion and psychological resilience levels and to shape their relationships with each other.

Conclusion

In conclusion, it can be said that academic motivation serves as an element that directs students who participate in regular physical activity towards success, while self-compassion and psychological resilience act as supportive factors that increase motivation. Understanding the effects of these concepts is important for families and educators to create environments that foster student development and success.

Recommendation

In this context, it is recommended within the scope of our study to encourage and enable students to benefit from the gyms or sports centers in universities, and for educators to potentially increase students' motivation and academic performance by incorporating physical activities into academic contexts.

Limitations

The limitations of this study require careful consideration of its findings. First, the study is limited in its ability to establish cause and effect as a result of its correlational and cross-sectional design as well as its reliance on convenience sampling methods. Furthermore, the absence of a clinical group in the sample should also be recognized as a limitation. In addition, the qualities of university students who regularly participated in physical activities were only assessed through self-report, thus introducing another limitation. Consequently, in future research, the use of a mixed research approach that includes the perspectives of both students regularly engaged in physical activities and sedentary students through triangulation may provide a more comprehensive view. Finally, it is important to note that the study only focused on university students who participated in regular physical activities in the Turkish sample.

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REFERENCES

Asfahani, A. M. (2024). Nurturing the scientific mind: resilience and job satisfaction among saudi faculty. *Frontiers in Psychology*, 15:1341888. https://doi.org/10.3389/fpsyg.2024.1341888

Bai, M., Yao, S., Ma, Q., Wang, X., Liu, C., & K, G. (2022). The relationship between physical exercise and school adaptation of junior students: a chain mediating model. *Frontiers in Psychology*, 13. https://doi.org/10.3389/fpsyg.2022.977663

Baños, R., Espinoza-Gutiérrez, R., Calleja-Núñez, J. J., & Rodríguez-Cifuentes, G. (2023). Analysis of academic psychological variables, physical education, and physical activity levels of Mexican students. Behavioral Sciences, 13(3), 271. https://doi.org/10.3390/bs13030271

Biricik, Y.S., Karababa, B. & Sivrikaya, M. H. (2023). The relationships between emotional reactivity and psychological adaptation skills: a study on elite level athletes. *Journal of Education and Recreation Patterns (JERP), 4*(2), 573-586. https://doi.org/10.53016/jerp.v4i2.139

Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2022). *Bilimsel araştırma yöntemleri* (30. Baskı), Pegem Akademi.

Chen, H. L., Wang, H. Y., Lai, S. F., & Ye, Z. J. (2022). The associations between psychological distress and academic burnout: A mediation and moderation analysis. *Psychology Research and Behavior Management*, 15, 1271-1282. https://doi.org/10.2147/prbm.s360363

Doğan, T. (2015). Kısa psikolojik sağlamlık ölçeği'nin Türkçe uyarlaması: Geçerlik ve güvenirlik çalışması. *The Journal of Happiness & Well-Being, 3*(1), 93-102.

Donkor, S. K., Appiah, M., Nyavor, L. G., Atsu, F. S., Avornyo, G. K., & Ocansey, R. (2021). Engagement in physical activity for health and well-being: Self-rated activity level, perception of the value of physical activity and differences among teachers in public primary schools of six selected educational circuits. *International Journal of Physical Education, Sports and Health, 8*(5), 186-191. https://doi.org/10.22271/kheljournal.2021.v8.i5c.2285

Fleming, K. (2021). Examining life satisfaction and self-compassion among students attending a historically black college and university in the U.S. *Journal of Education and Recreation Patterns (JERP), 2*(2),12-20

Ghorbanzadeh, K., Hosseini, M., Dalvandi, A., & Hajar, S. (2018). Exploring perceptions of students' academic motivation by university professors - a qualitative study. *Educational Research in Medical Sciences*, 7,2. https://doi.org/10.5812/erms.69363

Hassel, G., Milroy, J. J., & Orsini, M. M. (2015). Investigating motivation for physical activity among minority college females using the breq-2. *Journal of Student Research, 4*(1), 40-44. https://doi.org/10.47611/jsr.v4i1.155

Howie, E. K., & Pate, R. R. (2012). Physical activity and academic achievement in children: A historical perspective. *Journal of Sport and Health Science, 1*(3), 160-169. https://doi.org/10.1016/j.jshs.2012.09.003

Hu, H. & Luo, H. (2021). Academic motivation among senior students majoring in rehabilitation related professions in china. *BMC Medical Education, 21*(1). https://doi.org/10.1186/s12909-021-03016-9

Karagüven, M. H. (2012). Akademik motivasyon ölçeğinin Türkçeye adaptasyonu. *Kuram ve Uygulamada Eğitim Bilimleri, 12*(4), 2599-2620.

Karasar, N. (2022). *Bilimsel araştırma yöntemi* (36. baskı). Nobel Yayıncılık.

Kayani, S., Kiyani, T., Jin, W., Zagalaz-Sánchez, M. L., Kayani, S., & Qurban, H. (2018). Physical activity and academic performance: the mediating effect of self-esteem and depression. *Sustainability, 10*(10), 3633. https://doi.org/10.3390/su10103633

Keeley, T. J. & Fox, K. R. (2009). The impact of physical activity and fitness on academic achievement and cognitive performance in children. *International Review of Sport and Exercise Psychology, 2*(2), 198-214. https://doi.org/10.1080/17509840903233822

Kim, Y. & Cho, S. (2021). Regular exercise and depressive symptoms in korean older adults. *International Journal of Environmental Research and Public Health, 18*(1), 303. https://doi.org/10.3390/ijerph18010303

Kotera, Y., Aledeh, M., Barnes, K., Rushforth, A., Adam, H., & Riswani, R. (2022b). Academic motivation of Indonesian University students: relationship with self-compassion and resilience. *Healthcare 10*(10), 2092. https://doi.org/10.3390/healthcare10102092

Kotera, Y., Maybury, S., Liu, G., Colman, R., Lieu, J., & Dosedlová, J. (2022a). Mental well-being of Czech university students: academic motivation, self-compassion, and self-criticism. *Healthcare, 10*(11), 2135. https://doi.org/10.3390/healthcare10112135

Kotera, Y., Taylor, E., Fido, D., Williams, D., & Tsuda-McCaie, F. (2021). Motivation of uk graduate students in education: self-compassion moderates pathway from extrinsic motivation to intrinsic motivation. *Current Psychology, 42*(12), 10163-10176. https://doi.org/10.1007/s12144-021-02301-6

Martin, A. J. & Marsh, H. W. (2006). Academic resilience and its psychological and educational correlates: a construct validity approach. *Psychology in the Schools, 43*(3), 267-281. https://doi.org/10.1002/pits.20149

Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity, 2*(3), 223-250.

Park, M., Hong, J., Park, J., & Chung, S. (2023). Impact of resilience and viral anxiety on psychological well-being, intrinsic motivation, and academic stress in medical students during the covid-19 pandemic. *Psychiatry Investigation, 20*(6), 524-530. https://doi.org/10.30773/pi.2023.0019

Pertiwi, M. A., Herdian, H., Wulandari, D. A., & Wahidah, F. R. N. (2024). Supportive families and self-compassion: keys to alleviating academic stress in thesis-engaged undergraduate students in Indonesia. *International Journal of Innovative Research in Multidisciplinary Education, 03*(3). https://doi.org/10.58806/ijirme.2024.v3i3n23

Riddell, M. & Iscoe, K. (2006), Physical activity, sport, and pediatric diabetes. *Pediatric Diabetes,* 7: 60-70. https://doi.org/10.1111/j.1399-543X.2006.00146.x

Shahid, W. & Farhan, S. (2022). The effect of self-compassion intervention on academic motivation and academic stress on mental health of students in hybrid learning. *Journal of Professional & Amp; Applied Psychology, 3*(2), 165-181. https://doi.org/10.52053/jpap.v3i2.101

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine,* 15, 194-200. https://doi.org/10.1080/10705500802222972

Sotiropoulou, K., Patitsa, C., Giannakouli, V., Galanakis, M., Koundourou, C., & Tsitsas, G. (2023). Self-compassion as a key factor of subjective happiness and psychological well-being among greek adults during covid-19 lockdowns. *International Journal of Environmental Research and Public Health, 20*(15), 6464. https://doi.org/10.3390/ijerph20156464

Trigueros, R., Padilla, A., Aguilar-Parra, J. M., Mercader, I., Liria, R. L., & Rocamora-Pérez, P. (2020). The influence of transformational teacher leadership on academic motivation and resilience, burnout and academic performance. *International Journal of Environmental Research and Public Health, 17*(20), 7687. https://doi.org/10.3390/ijerph17207687

Vallerand, R. J., Blais, M. R., Brière, N. M., & Pelletier, L. G. (1989). Construction et validation de l'Échelle de Motivation en Éducation (EME). *Revue Canadienne Des Sciences Du Comportement*, 21, 323–349.

Xiang, J., Gao, J., & Gao, Y. (2023). The relationship between physical activity and academic achievement in middle school students: the chain mediating role of social support and learning engagement. *Research Square*. https://doi.org/10.21203/rs.3.rs-3338210/v1

Yang, S. & Wang, W. (2022). The role of academic resilience, motivational intensity and their relationship in efl learners' academic achievement. *Frontiers in Psychology*, 12. https://doi.org/10.3389/fpsyg.2021.82353 7

Yıldırım, M. & Sarı, T. (2018). Öz-şefkat ölçeği kısa formu'nun Türkçe uyarlaması: geçerlik ve güvenirlik çalışması. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, 18*(4), 2502-2517. https://doi.org/10.17240/aibuefd.2018.18.41844-452171

Yun, M. R., Lim, E. J., Yu, B., & Choi, S. (2020). Effects of academic motivation on clinical practice-related post-traumatic growth among nursing students in south korea: mediating effect of resilience. *International Journal of Environmental Research and Public Health, 17*(13), 4901. https://doi.org/10.3390/ijerph17134901

Author(s)' statements on ethics and conflict of interest

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