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Academic Stress among Students: A Perspective of Mindset and Academic Hardiness

Priska Analya[1], Ira Adelina[2], Lie Fun Fun[3], Andrew Lee[4], Joanna Wijaya[5]

[1, 2, 3, 4, 5]Faculty of Psychology, Maranatha Christian University, Bandung, Indonesia
*Email: priska.analya@psy.maranatha.edu

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ABSTRACT

Purpose – Building on mindset theory (growth and fixed mindsets), which emphasizes beliefs about the malleability of ability, and the concept of academic hardiness (commitment, control, challenge) as a source of resilience in coping with academic pressure, this study examines the roles of both factors in university students' academic stress. Prior research has more often tested mindset or hardiness separately, leaving the extent of their simultaneous contributions to predicting academic stress unclear, particularly in student populations. Hence, the present study is designed to examine the effect of mindset and academic hardiness on the students' view of academic stress.

Methodology – This study employed a quantitative correlation design using convenience sampling, involving 468 undergraduate students in the city of Bandung. The data were analyzed using multiple regression and collected through the Mindset Scale, the Revised Academic Hardiness Scale (RAHS), and the Academic Stress Inventories.

Findings – Academic hardiness was a significant and negative predictor of academic stress, whereas mindset was not a significant predictor of academic stress. The model accounted for 13.8% of the variance for academic stress, indicating that students' stress is more effectively buffered by resilience-related factors than by the cognitive orientation to stress.

Contribution – The findings underscore academic hardiness as a stronger protective factor for managing academic stress. Practically, universities may prioritize strengthening hardiness through stress-management training, challenge-based learning, and support for emotion regulation to promote students' adaptation and mental health.

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INTRODUCTION.

University students are expected to fulfill academic and non-academic requirements and responsibilities in their daily life, and the pressure is not limited to acquiring new knowledge. Adjustment to new settings, closer scrutiny of one's performance, and changes in social roles are all part of the transition to higher education – and these can place strain on an individual's personal and social development (Akour & Alenezi, 2022; Ivemark & Ambrose, 2021; Setiani et al., 2023). Stress, viewed from this perspective, is not an aberration but rather an adaptation to persistent demand. Specifically, academic stress is defined as the stress associated with study load, exams, and other study-related activities (Pascoe et al., 2020). Long or high levels of academic stress can impact the mind and body of students, potentially leading to reduced learning and achievement (Fuente et al., 2020).

Studies of student stress consistently identify influences that are both internal and external. Internally, students' thinking patterns, personality tendencies, and core beliefs influence how they interpret academic demands. Externally, stress may be fueled by heavy workloads, time pressure, pressure to perform, and family involvement, which can unintentionally intensify expectations (Lateef, 2020; Wright et al., 2023). However, a significant limitation of many descriptive studies is that stressors are often assumed to have equivalent effects among students. Two students on the street can have similar loads but be under different amounts of stress, because they assess stress differently and employ different strategies to deal with it. This is especially relevant when academic pressure is self-generated through perfectionistic standards and fear of underperformance (Liu & Xin, 2025). Without a practical survival guide and a supportive mindset for navigating setbacks, students may interpret routine academic challenges as signs of personal inadequacy rather than everyday developmental demands (Khairani et al., 2025; Limeri et al., 2020).

The consequences of unmanaged academic stress are not only emotional but also behavioral and academic in nature. Students who struggle to cope often disengage early, procrastinate, avoid complex tasks, and gradually lose motivation—patterns that can become self-reinforcing as challenges are avoided (Herut & Gorfu, 2024; To et al., 2021). However, the association between pressure and outcomes was not consistently negative. There is some evidence to suggest that pressure can be reinterpreted as mobilizing and goal-oriented rather than menacing when students are resilient enough (Yang & Wang, 2022). This suggests a critical point for intervention: the problem is not simply the presence of academic pressure, but the psychological mechanisms that shape whether pressure is perceived as a threat, a burden, or a challenge.

Two protective factors that are theoretically situated to influence this appraisal are Academic Hardiness and the growth mindset. Academic Hardiness (Benishek & Lopez, 2001) captures a pattern of resilient academic engagement through four components: regulating emotion in demanding situations (control of affect), sustaining effort toward goals despite setbacks (control of effort), maintaining meaningful commitment to academic goals (commitment), and viewing difficulty as an opportunity for development (challenge). Meanwhile, a growth mindset refers to the view that one's ability and intelligence are malleable and can be developed through effort and sound strategies. The third component relates to perseverance in the face of challenges (Yeager & Dweck, 2012). With a growth mindset, students are more likely to view mistakes as learning opportunities, persevere when they encounter challenges, and remain engaged when tasks become difficult. Conceptually, these constructs should not be viewed in isolation: a growth mindset may strengthen the challenge orientation of Academic Hardiness and support sustained effort and emotional regulation during academic stress.

Although research has been conducted to demonstrate the importance of mindset and Academic Hardiness, the current literature still leaves several key questions unanswered that need to be addressed. Research, such as that of Jenkins et al. (2021), illustrates associations between mindset and well-being/achievement outcomes, and Goldberg (2022) highlights the connection between mindset-related learning motivation and neuroplasticity. In parallel, Wardani (2020) posits that academic hardiness serves as a protective factor for mental health, and Kamtsios (2023) reports associations between academic hardiness,

happiness, and academic success. However, this body of work is fragmented in two ways. First, many studies examine either mindset or academic hardiness as a single predictor, which risks oversimplifying students' stress responses by implying one dominant psychological cause. Second, findings are not always directly comparable because studies often differ in outcomes (grades, well-being, stress), contexts, and measurement choices—making it challenging to infer whether these constructs independently buffer stress, under which conditions they do so, and whether one construct matters more when the other is present. As a result, the literature offers valuable correlations but a limited explanation of how protective factors combine into a coherent mechanism that shapes academic stress.

The key gap is that the interaction between growth mindset and Academic Hardiness is rarely tested as an integrated psychological mechanism for predicting academic stress. Most existing studies treat them as separate trait-like predictors, leaving it unclear whether (a) growth mindset strengthens the protective role of Academic Hardiness, (b) Academic Hardiness explains how mindset translates into lower stress (as a mediating pathway), or (c) their combination produces a synergistic effect that is stronger than either factor alone. This study addresses that gap by advancing an integrative model that examines growth mindset and Academic Hardiness simultaneously as interrelated protective factors in the prediction of academic stress. By doing so, the study moves beyond descriptive claims (mindset helps or hardiness helps) toward a more precise account of how beliefs and resilient academic attitudes may work together to shape stress appraisals and stress outcomes.

Accordingly, the goal of this study is to examine how growth mindset (attitude) and Academic Hardiness contribute, both independently and jointly, to university students' academic stress. The study investigates explicitly whether a growth mindset strengthens key components of Academic Hardiness (control, commitment, and challenge orientations), thereby supporting more adaptive responses to academic pressure. Practically, clarifying this mechanism can inform university interventions that are more targeted than generic stress management—such as mindset-oriented psychoeducation paired with resilience and hardiness skills training, or counseling programs that help students reinterpret difficulty while building commitment and effort regulation. The study is a planned endeavor that seeks to contribute to theoretical developments through bridging two traditionally distinct streams of research and to practical advancements by pinpointing potential intervention targets for alleviating academic stress without compromising students' academic functioning and well-being.

METHODOLOGY

Research Design

This research employed a correlational design with a quantitative approach to gather information about the attitudes, academic resilience, and academic stress of university students. The choice of the quantitative approach was made because it enables the investigation of the relationship between variables through the application of statistical techniques, which replace systematic measurement of variables. The investigation centered on three key variables: mindsets (growth and fixed orientations), academic hardiness (commitment, control, and challenge), and academic stress (the extent of pressure experienced as a result of academic requirements and situations).

Participants

This study was part of a larger investigation, involving undergraduate students from universities in Bandung, Indonesia (N = 468). Participants were recruited through convenience sampling, chosen for methodological and practical reasons to gain timely access to eligible respondents as well as because a complete sampling frame across universities was not easily attainable. To ensure diversification (to some extent) of the accessible target population, the recruitment focused on students in different years of study and academic fields; in addition, demographic information such as age, gender, year of study, and field of study

was collected to describe the sample The inclusion criteria were: (1) The participant must be an active undergraduate student in a university in Bandung, (2) Residing in the city of Bandung at the time of the data gathering, and (3) Participation in the study was voluntarily.

Instruments

Data were collected using three standardized instruments. The Mindset Scale was created by Edwina & Sembiring (2021). It consisted of 20 questions that evaluated beliefs in four areas: intellectual, skill, and personality beliefs; obstacle, challenge, and failure beliefs; effort beliefs; and criticism or feedback beliefs. The instrument included Likert-style questions, with options of "agree" or "disagree," presented in two rows. The positive statements represented growth mindsets, and the negative statements represented fixed mindsets. In addition, a modified form of the Academic Hardiness Scale (AHRS), based on that by Benishek et al. (2005), is a 40-item measure that assesses three factors: commitment, emotional regulation/effort, and difficulty, using a Likert scale. To ensure conceptual equivalence, the instrument was translated into Indonesian through the back-translation technique. Third, Lin & Chen (2009) constructed the Academic Stress Inventories, comprising 34 items that assess different types of academic stress, including stress from teachers, grades, tests, studying with friends and peers, time management, and self-imposed stress.

Data Analysis

The information obtained through the surveys underwent several processes of data cleaning and coding. The effects of mentality and academic hardiness on academic stress levels were examined through the application of multiple regression analyses. Before the analysis, assumption testing for the regression model was examined. These assumptions included normality, linearity, multicollinearity, and homoscedasticity. The obtained regression coefficients, significance values, and model fit indices also enabled us to analyze the studied variables in depth.

FINDINGS

The participants' demographics are described in this section to inform the interpretation of the findings. Table 1 shows the frequency of respondents' age, sex, semester, and significant study.

Table 1. Participants' Demographic Characteristics

Characteristic	Category	n	Percentage
Age	17–18 years	76	16.2 %
	19–20 years	196	41.9 %
	21–22 years	166	35.5 %
	≥23 years	29	6.2 %
	No response	1	0.2 %
Gender	Male	134	28.6 %
	Female	334	71.4 %
Semester	1–2	184	39.3 %
	3–4	67	14.3 %
	5–6	61	13.0 %
	7–8	152	32.5 %
	≥9 (10–11)	3	0.6 %
	No response	1	0.2 %
Major	Psychology	301	64.3 %
	Other majors	167	35.7 %
Total		468	100 %

Based on Table 1, a total of 468 subjects were included. The majority of the students were 19–20 years of

age (41.9%, n = 196), followed by the 21–22 year age group (35.5%, n = 166), and then the 17–18 year age group (16.2%, n = 76). A slight fraction of respondents were aged 23 years or above (n = 29; 6.2%), and one respondent did not disclose their age (n = 1; 0.2%). The sample was predominantly female (n = 334; 71.4%), while the sample of males consisted of 28.6% (n = 134). Out of the total participants, a majority were from 1–2 (n = 184; 39.3%) as well as 7–8 (n = 152; 32.5%) semesters, while the rest were from 3–4 (n = 67; 14.3%) and 5–6 (n = 61; 13.0%) semesters, respectively. Only three respondents were in the 10th and 11th semesters (n = 3; 0.6%), and one respondent did not specify their semester (n = 1; 0.2%). Most participants were Psychology students (n = 301, 64.3%), whilst the others represented a variety of majors such as Management, Accounting, Informatics Engineering, Industrial Engineering, Information Systems, Medicine, Visual Communication Design, Electrical Engineering, Law, Information Technology, English Literature, Architecture, Dentistry, Mandarin Literature, Business, Interior Design, Computer Systems, Civil Engineering, Pharmacy, Fashion Design, Pastry, Pure Mathematics, Medical Engineering, Japanese Literature, Energy Engineering, Telecommunication Engineering and Food Technology.

Under these circumstances, a multiple regression analysis was conducted to examine the predictive function of attitude and academic resilience on students' academic stress. The use of regression analysis was appropriate, as it enabled the study of the effect of predictor variables on the dependent variable, both separately and simultaneously. The outcome of the analysis is three main output tables: Model Summary, ANOVA, and Coefficients. These display tables test the strength of the relationship, the significance of the model, and the contribution of each independent variable in predicting academic stress. This part lists out the results in order.

Table 2. The Model Summary

Model	R	R^2	Adjusted R^2	Std. Error	R^2 Change	F	df1	df2	Sig. F
1	0.371	0.138	0.127	21.73986	0.138	13.242	2	166	0.000

Model Summary results showed that the R Square value of 0.138, indicating that mindset and academic hardiness could jointly account for only 13.8% of the variance in academic stress. However, even though these two factors contribute to the model, the somewhat modest R^2 value suggests that their impact is still relatively limited. In general, this means that academic stress is the result of a combination of different factors and cannot be explained solely from a cognitive perspective (mindsets) or a personal characteristics perspective (hardiness). Therefore, most of the variance of students' academic stress (86.2%) was probably explained by other variables not included in the model, such as social support from peers or family, students' perception of the campus environment, time management skills, workload of academic demands, or other individual factors, including emotional regulation and coping strategies. This low R^2 value indicates that mindset and academic hardiness have an influence, but are not the most important factors affecting academic stress. Therefore, in future studies, consideration should be given to other contextual and psychosocial factors to provide a more comprehensive view of the factors influencing academic stress.

Table 3. The Result of Multiple Regression Analysis

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	12516.849	2	6258.425	13.242	0.000
Residual	78455.151	166	472.621		
Total	90972.000	168			

The ANOVA results indicate that F (2,166) is 13.242 with p is 0.000. Because $p < 0.05$, the regression model is statistically significant. In other words, the above model can be used to predict the dependent variable (academic stress) based on the independent variables (mindset and academic hardiness). Overall, these results indicate that, for each student, these two predictors explain a substantial portion of the variance in academic stress reported by students. Taking everything into account, it appears that mindset and academic hardiness

are significant contributors to predicting academic stress levels.

Table 4. The Coefficient Table

Variables	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	183.378	15.599	–	11.756	0.000	–	–
Mindset	-0.190	0.152	-0.103	-1.253	0.212	0.774	1.293
Academic Hardiness	-0.950	0.251	-0.311	-3.794	0.000	0.774	1.293

In the regression model, mindset showed a small negative coefficient (B = -0.190). However, this effect was not statistically significant (p = 0.212), indicating that mindset did not uniquely predict academic stress in this sample after accounting for academic resilience. This is because mindset functions as a broader belief system about learning and ability, and its impact on stress is often indirect. Mindset, rather than directly affecting stress, appears to influence how students evaluate setbacks and feedback, and then influences stress through more proximate processes, such as emotion regulation, coping, sense of self-efficacy, or adaptability. The direct association between mindset and academic stress can seem weak or insignificant when these mediational processes are not modeled. It is also possible that mindset overlaps in meaning and variance with resilience-related qualities captured by academic resilience, such that the protective role of mindset is primarily absorbed by resilience in the simultaneous regression. Finally, in the Indonesian context, where academic stress can be significantly influenced by collective learning norms, peer dynamics, and family expectations, personal beliefs may have less direct influence on stress. They may be more important under specific circumstances than universally. Overall, these results suggest that mindset may influence academic stress indirectly or conditionally, through psychological skills and sociocultural context, rather than as a stand-alone predictor. Conversely, academic resilience was a significant negative predictor of academic stress (B = -0.950, $p < 0.001$, reported as 0.000), indicating that students with higher academic resilience tended to report lower levels of academic stress. These results are consistent with the perspective that resilience, indicative of commitment, control, and challenge orientation, can be conceptualized as a more proximal protective resource that enables students to cope with academic requirements and regulate stress responses effectively.

DISCUSSION

The results of the study indicate that academic hardiness significantly predicts academic stress, but mindset was not a significant predictor (Table 4). This suggests that the academic hardiness components of commitment, control, and challenge are more predictive of how well students cope with academic stress than either growth or fixed mindsets. Consistent with Table 4, academic hardiness also has a larger standardized effect ($\beta = -0.311$, $p < 0.001$) than mindset ($\beta = -0.103$, $p = 0.212$), and the explained variance by hardiness in this model is higher than that of mindset, suggesting that hardiness adds more unique explained variance into this model. Thus, a positive mental attitude, accompanied by an expression of hardiness, can be beneficial in stress relief. This aligns with results from worldwide contexts. Rodríguez et al. (2024) stated that hardiness functions as a psychological buffer for stress and that hardy individuals perceive events as more predictable and less threatening. Na'imah et al. (2025) also report a similar finding: unde r study pressure, students with stronger wills were more likely to cling to their resolve and motivation to study. These findings contribute to the growing body of evidence that resilience in the educational environment protects students' emotional well-being.

On the other hand, this study was unable to identify substantial evidence that mindset (attitude) has an impact on academic stress. This can be theoretically explained by previous findings showing that mindset tends to operate indirectly, through increases in self-efficacy, emotional regulation, or adaptability, before it can influence stress (Yeager & Dweck, 2012; Zarrinabadi et al., 2022). In other words, mindset does not directly predict stress, but is a distal variable whose effect is only manifest when mediated by emotional regulation

abilities or coping strategies. As these mediating variables are not incorporated into the current model, the effect of mindset on stress becomes statistically non-significant. This finding also supports the hypothesis that mindset affects stress only when individuals can translate their beliefs into adaptive behaviors, making its impact indirect and highly contextual. Two additional explanations may help clarify the non-significant finding. First, there may be a measurement mismatch: the mindset instrument used here captures beliefs about the malleability of ability, whereas the academic stress measure emphasizes situational demands such as teachers, grades, tests, and time management. Second, research distinguishes between ability mindsets and stress mindsets; beliefs about whether stress can be enhancing or debilitating may be more proximal to stress outcomes than general growth or fixed beliefs (Jenkins et al., 2021). In collectivistic or high-expectation environments, external pressures such as family expectations, competitive grading practices, and peer comparison may dominate stress appraisals, potentially reducing the direct role of individual belief systems unless strong coping resources support them.

This study does not support the statement by Meierdirk & Fleischer (2022) that a growth mindset promotes resilience after experiencing adversity. Zarrinabadi et al. (2022) found that a growth mindset promotes learning and motivation; however, it does not have a direct effect on stress and negative emotions, but rather its effect is situational and relies on individuals' coping strategies. In other words, attitude can be a meaningful variable. However, it alone cannot predict variation in academic stress. Other variables, such as students' emotion regulation ability, coping mechanisms, and social support, could also be affecting levels of stress. This pattern implies several testable hypotheses for future research: (1) growth mindset reduces academic stress indirectly through self-efficacy or adaptability and emotion regulation; (2) the effect of mindset is moderated by contextual demands such as workload intensity and financial strain, and by protective resources such as social support; and (3) mindset strengthens the challenge component of academic hardiness, such that a mindset and hardiness interaction predicts lower stress.

An R2 value of 0.138 suggests that only 13.8% of the variance of academic stress is explained by mindset and academic hardiness. The other 86.2% is related to the other variables. This is consistent with the global literature; Jorge et al. (2025) have highlighted academic stress as a multi-faceted issue, encompassing factors such as workload, time management, financial stress, and social support. Thus, the present findings emphasize the notion that cognitive or emotional factors do not fully account for academic stress and thus may require a more integrated consideration. It is worth noting that an overall statistically significant regression can still have low explanatory power. The F-test assesses whether the predictors collectively improve prediction relative to the null model, and R^2 expresses the proportion of variance explained. In this study, $R^2 = 0.138$ suggests limited practical prediction accuracy and substantial unexplained variance. For multifactor outcomes, such as academic stress, modest R^2 values are common and often reflect a mix of contextual variability and measurement error. Thus, the key implication is that the model is incomplete and should be expanded with broader psychosocial and contextual predictors.

Moreover, from a statistical point of view, the small R Square value not only implies that there are other significant predictors but also suggests that the model explains a minimal part of the complexity of academic stress This suggests that the unexplained 86.2% of variance may be attributed to factors such as emotional regulation, coping strategies, academic workload intensity, family expectations, financial strain, and peer dynamics. These variables have been repeatedly identified in the literature as significant predictors of academic stress, but were not included in the present regression model. The null effect of mindset may also reflect indirect pathways in the sense that the relation between mindset and stress may only exist when mediated by factors such as self-efficacy or adaptability, which were not assessed in the present study. This means that in future models, more global psychosocial constructs need to be integrated to enhance the explanatory power and better capture the multi-faceted nature of academic stress. In addition, the unexplained variance may reflect self-regulation processes (Fuente et al., 2020), procrastination and self-control dynamics (To et al., 2021), and self-imposed pressure or perfectionistic standards that intensify stress appraisals (Liu & Xin, 2025), alongside institutional and help-seeking barriers that shape access to coping resources (Baldwin-

Cantello et al., 2023). Because the VIF values are low (around 1.29), multicollinearity is unlikely to explain the null effect; instead, mindset appears to add slight unique variance once hardiness is taken into account. Analytically, future research can utilize hierarchical regression by adding contextual stressors and psychosocial resources in blocks, and can test mediation and moderation pathways using approaches such as structural equation modeling to capture indirect and conditional effects more effectively.

Unlike prior research, this study constitutes a targeted empirical examination of the correlation between academic mindset and academic hardiness, and its effect on students' academic strain. It suggests, through statistical support, that academic hardiness may be regarded as a potent protective element. Previous studies focused on academic hardiness and psychological well-being (Wardani, 2020), its association with happiness and academic success (Kamtsios, 2023), or considered mindset within brain maturation and sustainable motivation to learn (Goldberg, 2022). This research contributes to the literature by examining the relative effects of these two constructs on school stress. The non-significance of mindset, combined with the dominance of academic hardiness, contributes to the literature by underscoring the importance of adopting a holistic approach that considers psychological protective factors, rather than focusing solely on cognitive beliefs. Thus, this study suggests practical implications for higher education institutions to focus on cultivating academic hardiness through resilience training and stress management interventions, while encouraging future work to investigate potential mediating or moderating effects among mindsets, academic hardiness, and academic stress. In practical terms, the above findings indicate that building resilience should be augmented by context-level support (workload design, containing supportive feedback, and a peer-support program), as many stressors are situationally induced rather than purely thought-based.

Concerning the theoretical contribution, the present investigation further emphasizes that academic hardiness is a crucial antecedent of students' stress and can be considered a key protective factor of academic stress. Nonetheless, the effect of mindset may be weaker or indirect through other variables that warrant further investigation, such as mediators/moderators (e.g., emotion regulation, coping styles, social support). From a practical perspective, these results suggest that enhancing students' academic hardiness may be a crucial goal of higher education through resilience training, stress management strategies, and challenge-based learning. These interventions may help students reframe difficulties as opportunities to learn rather than as threats. Concurrently, mindsets were not found to have a significant direct influence on academic stress. However, mindset can still support adaptive functioning in specific contexts Therefore, educational programs could integrate mindset training with resilience development in order to strengthen both the cognitive and psychological foundations of adaptation In conclusion, the present results indicate that universities could develop interventions and curricula that address not only academic skills, but also psychological protective factors, as these are essential for students' mental health and performance. To strengthen the indirect role of mindset, universities can pair mindset-oriented learning messages with training in emotion regulation and coping skills, thereby increasing the likelihood that beliefs about growth will be translated into adaptive behaviors under pressure.

CONCLUSION

The present research found that academic hardiness negatively predicted academic stress; however, the predictive effect of mindset was not significant. Thus, academic hardiness plays a crucial role in enabling students to withstand academic pressure. The theoretical implication of this result is that psychological hardiness has a stronger association with academic stress than mindset. The practical implication is that universities should integrate stress management sessions, emotion regulation techniques, and challenge-based learning approaches into their curriculum. Nonetheless, this research has limitations. The R2 value is only 0.138, indicating that most of the variance in academic stress is accounted for by other variables. Convenience sampling may introduce bias, and correlational designs can not ascertain causation, but they can establish associations. Therefore, future research is recommended to include variables such as social support, self-efficacy, coping strategies, and emotional regulation, employ a mixed-methods approach, expand the

population scope, and apply longitudinal or experimental designs to provide a deeper and more applicable understanding of the protective factors that reduce students' academic stress.

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REFERENCES

Akour, M., & Alenezi, M. (2022). Higher Education Future in the Era of Digital Transformation. *Education Sciences*, *12*(11), 1–13. https://doi.org/10.3390/educsci12110784

Baldwin-Cantello, W., Tickner, D., Wright, M., Clark, M., Cornelius, S., Ellis, K., Francis, A., Ghazoul, J., Gordon, J. E., Matthews, N., Milner-Gulland, E. J., Smith, P., Walmsley, S., & Young, L. (2023). The Triple Challenge: synergies, trade-offs, and integrated responses for climate, biodiversity, and human well-being goals. *Climate Policy*, *2*(1), 1–18. https://doi.org/10.1080/14693062.2023.2175637

Benishek, L. A., Feldman, J. M., Shipon, R. W., Mecham, S. D., & Lopez, F. G. (2005). Development and Evaluation of the Revised Academic Hardiness Scale. *Journal of Career Assessment*, *13*(1), 59–76. https://doi.org/10.1177/1069072704270274

Benishek, L. A., & Lopez, F. G. (2001). Development and Initial Validation of a Measure of Academic Hardiness. *Journal of Career Assessment*, *9*(4), 333–352. https://doi.org/10.1177/106907270100900402

Edwina, O. I. P., & Sembiring, T. (2021). Peran Mindset terhadap Resiliensi Keluarga pada Dewasa Awal. *Psympathic : Jurnal Ilmiah Psikologi*, *8*(2), 183–194. https://doi.org/10.15575/psy.v8i2.9572

Fuente, J. de la, Peralta-Sánchez, F. J., Martínez-Vicente, J. M., Sander, P., Garzón-Umerenkova, A., & Zapata, L. (2020). Effects of Self-Regulation vs. External Regulation on the Factors and Symptoms of Academic Stress in Undergraduate Students. *Frontiers in Psychology*, *11*(1), 1–14. https://doi.org/10.3389/fpsyg.2020.01773

Goldberg, H. (2022). Growing Brains, Nurturing Minds—Neuroscience as an Educational Tool to Support Students' Development as Life-Long Learners. *Brain Sciences*, *12*(12), 1–12. https://doi.org/10.3390/brainsci12121622

Herut, A. H., & Gorfu, Y. A. (2024). Academic procrastination among PhD students in Ethiopia: An examination of prevalence, associated factors, and coping mechanisms. *Social Sciences and Humanities Open*, *9*(1), 1–12. https://doi.org/10.1016/j.ssaho.2024.100854

Ivemark, B., & Ambrose, A. (2021). Habitus Adaptation and First-Generation University Students' Adjustment to Higher Education: A Life Course Perspective. *Sociology of Education*, *94*(3), 191–207. https://doi.org/10.1177/00380407211017060

Jenkins, A., Weeks, M. S., & Hard, B. M. (2021). General and Specific Stress Mindsets: Links with College Student Health and Academic Performance. *PLoS ONE*, *16*(1), 1–25. https://doi.org/10.1371/journal.pone.0256351

Jorge, D. P., Boutaba-Alehyan, M., González-Contreras, A. I., & Pérez-Pérez, I. (2025). Examining the effects of academic stress on student well-being in higher education. *Humanities and Social Sciences Communications*, *12*(1), 1–13. https://doi.org/10.1057/s41599-025-04698-y

Kamtsios, S. (2023). The Interplay of Academic Hardiness, Passion for Studies, and Affective Experiences in Undergraduates' Happiness and GPA Scores: a Person-Oriented Approach. *Psychological Studies*, *68*(3), 359–373. https://doi.org/10.1007/s12646-023-00729-3

Khairani, C., Iqbal, M., & Wati, M. (2025). Invisible Barriers : Social Inequality and Its Impact on The Teaching and Learning Process. *Journal Eduscience (JES)*, *12*(3), 859–873. https://doi.org/10.36987/jes.v12i3.7216

Lateef, F. (2020). Maximizing learning and creativity: Understanding psychological safety in simulation-based

learning. *Journal of Emergencies, Trauma and Shock*, *13*(1), 5–14. https://doi.org/10.4103/JETS.JETS_96_19

Limeri, L. B., Carter, N. T., Choe, J., Harper, H. G., Martin, H. R., Benton, A., & Dolan, E. L. (2020). Growing a growth mindset: characterizing how and why undergraduate students' mindsets change. *International Journal of STEM Education*, *7*(1), 1–19. https://doi.org/10.1186/s40594-020-00227-2

Lin, Y. M., & Chen, F. S. (2009). Academic Stress Inventory of Students at Universities and Colleges of Technology. *World Transactions on Engineering and Technology Education*, *7*(2), 157–162. 10.12691/education-9-8-11

Liu, R., & Xin, P. (2025). Self-imposed pressure or joyful learning : emotions of Chinese as a foreign language learners in feedback on academic writing. *Frontiers in Psycology*, *1*(1), 1–14. https://doi.org/10.3389/fpsyg.2024.1463488

Meierdirk, C., & Fleischer, S. (2022). Exploring the mindset and resilience of student teachers. *Teacher Development*, *26*(2), 263–278. https://doi.org/10.1080/13664530.2022.2048687

Na'imah, T., Sriyanto, S., Nur'aeni, N., & Azzahra, N. F. (2025). School Climate and Academic Hardiness on Students' Subjective Well-being in a Boarding School with Student Engagement as Mediator. *Islamic Guidance and Counseling Journal*, *8*(1), 1–16. https://doi.org/10.25217/0020258567200

Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2020). The Impact of Stress on Students in Secondary School and Higher Education *International Journal of Adolescence and Youth*, *25*(1), 104–112. https://doi.org/10.1080/02673843.2019.1596823

Rodríguez, A. M., Gostian-Ropotin, L. A., Beltrán-Velasco, A. I., Belando-Pedreño, N., Simón, J. A., López-Mora, C., Navarro-Jiménez, E., Tornero-Aguilera, J. F., & Clemente-Suárez, V. J. (2024). Sporting Mind: The Interplay of Physical Activity and Psychological Health. *Sports*, *12*(1), 1–41. https://doi.org/10.3390/sports12010037

Setiani, R., Sartipa, D., & Novia, S. (2023). Students' Problems in Writing Paragraphs in The Second Semester of English Education at Muhammadiyah Kotabumi University. *Journal Eduscience (JES)*, *10*(3), 781–793. https://doi.org/10.36987/jes.v10i3.5259%0A

To, P. Y. L., Lo, B. C. Y., Ng, T. K., Wong, B. P. H., & Choi, A. W. M. (2021). Striving to avoid inferiority and procrastination among university students: The mediating roles of stress and self-control. *International Journal of Environmental Research and Public Health*, *18*(11), 1–12. https://doi.org/10.3390/ijerph18115570

Wardani, R. (2020). Academic Hardiness, Skills, and Psychological Well-being of New Students. *Jurnal Psikologi*, *19*(2), 188–200. https://doi.org/10.14710/jp.19.2.188-200

Wright, C. J., Wilson, S. A., Hammer, J. H., Hargis, L. E., Miller, M. E., & Usher, E. L. (2023). Mental health in undergraduate engineering students: Identifying facilitators and barriers to seeking help. *Journal of Engineering Education*, *112*(4), 963–986. https://doi.org/10.1002/jee.20551

Yang, S., & Wang, W. (2022). The Role of Academic Resilience, Motivational Intensity, and Their Relationship in EFL Learners' Academic Achievement. *Frontiers in Psychology*, *12*(1), 1–8. https://doi.org/10.3389/fpsyg.2021.823537

Yeager, D. S., & Dweck, C. S. (2012). Mindsets That Promote Resilience: When Students Believe That Personal Characteristics Can Be Developed. *Educational Psychologist*, *47*(4), 302–314. https://doi.org/10.1080/00461520.2012.722805

Zarrinabadi, N., Rezazadeh, M., Karimi, M., & Lou, N. M. (2022). Why do growth mindsets make you feel better about learning and your selves? The mediating role of adaptability. *Innovation in Language Learning and Teaching*, *16*(3), 249–264. https://doi.org/10.1080/17501229.2021.1962888