

Fortitude Meets Perseverance: Unraveling the Link Between Hardiness, Grit, and Academic Burnout Among Architecture Students in Surabaya

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Keywords

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Abstract

The increasing prevalence of academic burnout among university students in Indonesia necessitates a deeper understanding of its associated factors. This study aims to examine the relationship between hardiness, grit, and academic burnout among architecture students in Surabaya. Utilizing a quantitative correlational approach, the research involved 245 architecture students enrolled in public universities across Surabaya, selected through disproportionate stratified random sampling. The Maslach Burnout Inventory-Student Survey (MBI-SS) was employed to measure academic burnout, while hardiness was assessed using the Dispositional Resilience Scale (DRS-15-Revised), and grit was measured through Angela Duckworth's Grit Scale (2009). The findings indicate that hardiness and grit are simultaneously negatively associated with academic burnout. The regression analysis revealed a negative coefficient, suggesting that higher levels of hardiness and grit are associated with lower levels of academic burnout.

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INTRODUCTION

University students often face a significant academic workload each semester. A lack of preparedness for these responsibilities and an inability to adjust socially can contribute to mental health issues (Arlinkasari & Akmal, 2019). Mental health challenges can have severe physiological and psychological impacts on students, including physical ailments such as fatigue, and psychological consequences like psychological distress, burnout, depression, and anxiety (Dianti & Findyartini, 2019; Hariyadi et al., 2019). Prolonged psychological distress, as highlighted by Schaufeli (2002), can lead to burnout.

Burnout, as conceptualized by Maslach and Jackson (1981), is a syndrome characterized by emotional exhaustion, cynicism or depersonalization, and diminished personal accomplishment (Liu et al., 2021). While originally associated with the workplace, Schaufeli (2002) extended the concept to the academic domain, defining it as academic burnout, a syndrome marked by emotional exhaustion, cynicism or detachment, and reduced academic performance (Agustin et al., 2019). According to Maslach (1998) and Schaufeli (2002), students experiencing academic burnout exhibit symptoms such as emotional exhaustion, indifference, disengagement from academic activities, reduced competitiveness, and a sense of inefficiency in completing academic tasks (Brateanu et al., 2020).

Among those frequently affected by academic burnout are university students. Pines et al. (1998) found that students experience moderate to high levels of burnout compared to other professions such as counselors, nurses, and educators (Lin & Huang, 2019). A study conducted in the United States revealed that 90,000 students across 177 universities reported mental exhaustion, feelings of sadness or depression, and a sense of being overwhelmed by academic responsibilities (Özhan, 2021). If left unaddressed, academic burnout can escalate into severe depression, as shown in research by Praditiya (2019), which indicates a strong correlation between high levels of academic burnout and depression.

A notable case includes an architecture student diagnosed with severe academic burnout, leading to depression due to an inability to manage a heavy workload (Vice, 2020). Academic burnout has also been linked to suicidal ideation. Research by Ijaz and Ahmed (2019) underscores a significant association between academic burnout and suicide risk. For instance, a case reported by Tempo.com (2019) involved an architecture student in West Java who tragically ended their life, allegedly due to academic fatigue and stress.

Balogun's findings indicate that students experience substantial levels of academic burnout (Lin & Huang, 2019), with first-year students being particularly vulnerable. Qazi (2019) reported that 54% of first-year students experience high levels of burnout due to the significant demands of academic life. Similarly, Alimah (2021) found that 64.6% of first-year students exhibit higher levels of academic burnout compared to their senior counterparts. Anastasia and Yasmin (2020) further identified that first-year students experience physical and emotional exhaustion (73.6%), sleep difficulties (69.1%), headaches or dizziness (62.5%), decreased learning motivation (70.6%), and a decline in enthusiasm for completing academic tasks (67.7%).

Architecture students are particularly susceptible to academic burnout due to their program's demanding nature. A survey by Rebecca (2023) found that 87.1% of architecture students experienced academic burnout, aligning with data from the American Psychological Association (APA), which reported that 84% of architecture students experienced high stress levels as of April 2020. Similarly, Inayatu (2020) noted that 56% of architecture students experience academic burnout, with emotional exhaustion (40%), cynicism (24%), and reduced performance (36%) being prominent dimensions. Preliminary findings from a survey conducted on 35 architecture students at public universities in

Surabaya revealed that 63% reported high levels of academic burnout, with the remaining 37% reporting moderate levels.

According to Maslach et al. (2001), academic burnout arises from both situational (external) and individual (internal) factors (Hairina et al., 2022). External factors include excessive workloads and limited social support, while internal factors relate to personal characteristics such as demographic and personality traits. Among these, personality traits such as hardiness play a crucial role. Kobasa (1982) described hardiness as a personality characteristic that serves as a resilience resource, enabling individuals to cope with life's pressures. Sarwono and Ariana (2022) demonstrated that higher levels of hardiness are associated with lower levels of academic burnout. Similarly, Handayani et al. (2023) confirmed a negative correlation between hardiness and academic burnout among students.

In addition to hardiness, grit has been identified as an essential factor in addressing academic burnout. Teuber et al. (2021) argued that grit helps students persevere in completing academic tasks, thereby mitigating burnout. Duckworth et al. (2007) defined grit as the passion and perseverance to achieve long-term goals despite challenges. Jumat et al. (2020) identified grit as a protective factor against academic burnout, while Tang et al. (2021) reported that higher levels of grit significantly reduce depressive symptoms associated with academic burnout.

According to Antonovsky's Sense of Coherence (SOC) theory (1988), hardiness, grit, and academic burnout are interconnected psychological constructs within the academic context. The theory posits that individuals with strong coping abilities, driven by hardiness and grit, are better equipped to manage stress and challenges, thereby reducing the risk of academic burnout.

Given the severe consequences of academic burnout, particularly among architecture students, this study aims to investigate the relationship between the personality trait of hardiness and grit as factors in mitigating academic burnout among architecture students in Surabaya.

METHODS

This study employed a quantitative correlational approach to investigate the relationship between hardiness, grit, and academic burnout among architecture students in Surabaya. The sample consisted of 245 students enrolled in public universities in Surabaya, selected through disproportionate stratified random sampling.

Three standardized measurement instruments were utilized in this research. Academic burnout was assessed using the Maslach Burnout Inventory-Student Survey (MBI-SS) developed by Schaufeli and Salanova (2007), with a reliability coefficient of 0.831. Hardiness was measured using the Dispositional Resilience Scale (DRS-15-Revised) by Hystad et al. (2010), which demonstrated a reliability coefficient of 0.844. Grit was evaluated using Angela Duckworth's Grit Scale (2009), which reported a reliability coefficient of 0.715.

The data were analyzed using multiple linear regression to examine the simultaneous relationship between two or more independent variables and the dependent variable. Data analysis was conducted using SPSS software version 25.0.

RESULT AND DISCUSSION

The study involved 245 participants, comprising 158 female students (64%) and 87 male students (36%). Participants were enrolled across semesters 1, 3, 5, and 7 at public universities in Surabaya, including the Institut Teknologi Sepuluh Nopember (ITS), Universitas Pembangunan Nasional "Veteran" Jawa Timur (UPNVJT), and Universitas Islam Negeri Sunan Ampel Surabaya (UINSA). Data were collected using three instruments: the Maslach Burnout Inventory-Student Survey (MBI-SS), the Dispositional Resilience Scale (DRS-15-Revised), and the Grit Scale. The data

met all assumptions required for multiple linear regression analysis. Normality was confirmed ($p = 0.200 > 0.05$), multicollinearity was not present, as evidenced by VIF ($2.816 < 10$) and tolerance ($0.355 > 0.1$), and the heteroscedasticity test indicated no issues ($p > 0.05$).

Table 1. Regression coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	74.826	1.656		45.197	.000
	Hardines (X1)	-.762	.074	-.593	-10.346	.000
	Grit (X2)	-.512	.100	-.293	-5.119	.000

a. Dependent Variable: Academic Burnout (Y)

Table 1 demonstrates that the hardiness variable yielded a significance value of 0.000 ($p < 0.05$) with a t-value of -10.346, while the grit variable also showed a significance value of 0.000 ($p < 0.05$) with a t-value of -5.119. Both variables exhibited a negative relationship with academic burnout, as indicated by their regression coefficients.

Table 2. Anova

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14030.3925522	2242244	7015.19622.822	307.	.000 ^b
	Residual Total	8481955,241			392	

b. Dependent Variable: Academic Burnout (Y)

c. Predictors: (Constant), Grit (X2), Hardiness (X1)

Table 2 presents an overall significance value of 0.000 ($p < 0.05$), indicating a simultaneous relationship between hardiness and grit with academic burnout.

Table 3. R-Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.847a	.718	.715	4.777

a. Predictors: (Constant), Grit (X2), Hardiness (X1)

Table 3 reports an R-Square value of 0.718, suggesting that 71.8% of the variance in academic burnout is explained by hardiness and grit, while the remaining 28.2% is attributed to other factors not examined in this study.

The findings of this study revealed that hardiness and grit are negatively associated with academic burnout, indicating that individuals with higher levels of hardiness and grit experience lower levels of academic burnout. These results align with the Sense of Coherence (SOC) theory proposed by Aaron Antonovsky (1988), which emphasizes that hardiness and grit enhance an individual's ability to manage stress and challenges in academic life. This, in turn, helps mitigate and prevent academic burnout, while also contributing to academic success. Similarly, Barber (2019) found that hardiness and grit significantly contribute to individuals' academic achievements.

Individuals with high levels of hardiness possess key characteristics such as commitment, control, and a strong sense of challenge, which allow them to better navigate stressful situations. These traits enable them to view challenges as opportunities for growth rather than as threats, facilitating resilience and personal development (Jalilvand, Yamini, & Nia, 2015). Moreover, hardiness has been

shown to buffer the adverse effects of stress and academic burnout, providing a protective mechanism that helps individuals maintain psychological and physiological stability (Rowe, 1998).

Similarly, grit plays a crucial role in preventing and reducing academic burnout by fostering perseverance and consistency toward achieving long-term goals. This reduces the risk of emotional exhaustion and disengagement (Puspita & Kusumaputri, 2021). Grit enables students to sustain their interest and effort over extended periods, promoting optimism and resilience in the face of academic challenges (Muenks et al., 2017). Consistent with these findings, Brateanu et al. (2020) highlighted that grit acts as a protective factor, reducing the likelihood of emotional exhaustion. Additionally, Halliday et al. (2017) demonstrated that increasing levels of grit can help address early signs of burnout and prevent more severe complications.

The negative relationship between hardiness, grit, and academic burnout observed in this study highlights the importance of cultivating these traits to foster student well-being and academic performance. For architecture students, who are particularly vulnerable to academic burnout due to high workload demands and prolonged study hours, interventions focused on enhancing hardiness and grit could significantly reduce their risk of burnout. Such interventions might include resilience training programs, goal-setting workshops, and strategies to strengthen students' sense of control and perseverance in academic tasks.

While this study provides valuable insights into the relationship between hardiness, grit, and academic burnout, several limitations must be acknowledged. First, the study was conducted exclusively among architecture students in Surabaya, limiting the generalizability of the findings to other disciplines or geographic contexts. Additionally, the disproportionate stratified random sampling method may introduce bias, as it does not ensure equal representation of subgroups. Second, while the results demonstrate that 71.8% of the variance in academic burnout is explained by hardiness and grit, 28.2% of the variance remains unexplained, suggesting the influence of other factors not examined in this study. For instance, external factors such as social support, academic pressure, and institutional resources, as well as individual factors like personality traits beyond hardiness and grit, may also play significant roles. Finally, the cross-sectional design of this study precludes the ability to draw causal conclusions. Future research should consider longitudinal designs to examine how hardiness and grit evolve over time and their long-term impact on academic burnout. Expanding the sample to include students from diverse academic disciplines and institutions could also enhance the generalizability of the findings.

CONCLUSION

This study concludes that hardiness and grit are negatively associated with academic burnout, indicating that higher levels of hardiness and grit correspond to lower levels of academic burnout. These findings support the study's hypothesis and emphasize the critical role of resilience and perseverance in mitigating academic challenges and stressors.

Architecture students are encouraged to maintain consistency and commitment to their academic goals. Perseverance and dedication are essential for managing the rigorous demands of the program while minimizing the risk of academic burnout. Self-regulation strategies, effective time management, and peer support networks can further enhance students' resilience. Parents, as integral contributors to students' well-being, should foster emotional support and establish close relationships with their children. Positive parenting practices, such as authoritative or wise parenting, play a pivotal role in shaping traits like hardiness and grit, creating a nurturing home environment that buffers students against academic pressures.

The Department of Architecture and relevant policymakers should prioritize initiatives to address the demanding nature of architecture curricula. This can include implementing resilience-

building workshops, stress management training, and accessible mental health support tailored to architecture students. Moderating academic workloads and ensuring the availability of counseling services can further enhance the academic environment. Regular evaluations of student well-being should be incorporated into institutional practices to identify and address burnout proactively.

Future research should consider additional variables that may influence academic burnout, as the current study explains 71.8% of its variance, leaving 28.2% unexplained. Factors such as excessive academic workload, social support, demographic characteristics, educational level, and career expectations warrant further exploration. Investigating gender-based differences in academic burnout could provide valuable insights into whether male and female students experience and respond to burnout differently. Longitudinal studies focusing on the evolution of hardiness and grit over time and their long-term effects on academic burnout would enhance understanding of these constructs. Expanding the sample to include diverse academic disciplines and institutions could also improve the generalizability of findings and offer a broader perspective on academic burnout across different student populations.

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