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When Procrastination Meets Burnout: Investigating the Academic Struggles of Medical Students at UIN Maulana Malik Ibrahim Malang

Doby Indrawan[1*], Dyah Pramesti Gayuh Utami Asih Lestari[2]
UIN Maulana Malik Ibrahim Malang
Corresponding Author: Doby Indrawan dobyindrawan@kedokteran.uin-malang.ac.id

A R T I C L E I N F O

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A B S T R A C T

Academic procrastination is a major issue among medical students, often leading to stress, burnout, and decreased academic performance. Despite the rigorous nature of medical education, limited studies have explored the direct relationship between procrastination and burnout. This study examines the correlation between academic procrastination and burnout among medical students, focusing on key procrastination factors contributing to academic stress. A quantitative correlational research design was employed, involving 93 medical students from UIN Maulana Malik Ibrahim Malang selected through total sampling. Data were collected using a structured questionnaire based on validated scales measuring six procrastination indicators (P1-P6) and three burnout dimensions (B1-B3) from the Maslach Burnout Inventory (MBI). Spearman's rank correlation analysis was used to assess the relationships. Findings indicate a moderate positive correlation ($r = 0.430$, $p < 0.01$) between procrastination and burnout, suggesting that procrastinators are more likely to experience burnout. Among procrastination factors, distraction ($r = 0.518$, $p < 0.01$) and poor time management ($r = 0.476$, $p < 0.01$) strongly predict academic exhaustion (B1), while laziness ($r = 0.409$, $p < 0.01$) is correlated with cynicism (B2). A negative correlation ($r = -0.411$, $p < 0.01$) between procrastination and inefficacy suggests that procrastinators do not always perceive themselves as ineffective but rely on last-minute productivity. These findings highlight the impact of procrastination on academic burnout, emphasizing the need for structured time management strategies, mindfulness interventions, and academic support programs. Future research should explore intervention-based solutions to mitigate procrastination-related burnout and enhance academic resilience

INTRODUCTION

Academic procrastination is a prevalent issue among students, particularly in high-demand fields such as medicine, where rigorous coursework, clinical training, and academic expectations often lead to task delays. Procrastination, defined as the intentional postponement of tasks despite awareness of negative consequences (Steel, 2007), has been linked to increased stress, anxiety, and reduced academic performance (Sirois & Pychyl, 2013). Among medical students, procrastination can lead to cognitive overload, ineffective time management, and increased psychological distress, all of which contribute to burnout (Schraw et al., 2007). Despite these concerns, research remains limited regarding the specific procrastination factors that most significantly contribute to burnout among medical students, particularly in the context of Indonesia's medical education system.

Burnout, as conceptualized by Maslach and Jackson (1981), consists of three core dimensions: emotional exhaustion, cynicism, and inefficacy. It is a common issue in medical education due to high academic pressure, extended study hours, and a demanding learning environment (Dyrbye et al., 2014). Numerous studies have identified procrastination as a key contributor to burnout, as students who delay academic tasks tend to experience increasing psychological distress and decreased motivation over time (Zhang et al., 2018). However, procrastination is not merely a time management issue; it is often associated with self-regulation deficits, avoidance coping strategies, and perfectionism (Rozental & Carlbring, 2014). Despite the well-established link between procrastination and burnout, there is a lack of research on how procrastination influences each burnout dimension (exhaustion, cynicism, and inefficacy), particularly among medical students in Indonesia.

Among the various procrastination factors, distraction of attention and poor time management have been identified as the strongest contributors to academic stress. The widespread use of digital media, including social media and streaming platforms, has significantly exacerbated procrastination tendencies (Meier et al., 2016). For medical students, who require sustained concentration to master complex material, these distractions can severely impact academic performance and lead to increased stress (Reinecke et al., 2018). Furthermore, ineffective time management is closely linked to burnout, as students who struggle to plan and prioritize tasks tend to experience higher academic stress, last-minute studying, cognitive overload, and sleep deprivation (Broadbent & Poon, 2015; Van Eerde, 2003). Given the nature of medical education, where consistent learning and preparation are crucial, poor time management can have severe long-term consequences on both academic performance and mental health.

Although procrastination is generally associated with negative academic outcomes, some studies suggest that not all procrastinators experience inefficacy. Research on active procrastination (Chu & Choi, 2005) suggests that some students intentionally delay tasks to enhance productivity and improve efficiency under pressure. These individuals leverage deadline-induced motivation to optimize performance. However, for most medical students,

procrastination is passive rather than strategic, resulting in heightened stress, decreased motivation, and increased burnout (Gustavson & Miyake, 2017). Understanding whether procrastination directly contributes to inefficacy or whether some students can maintain academic confidence despite frequent delays is crucial for designing effective interventions that address procrastination-induced burnout in medical education.

Research Objectives

This study aims to examine the relationship between academic procrastination and burnout among medical students at UIN Maulana Malik Ibrahim Malang, Indonesia, with a specific focus on the procrastination factors most significantly contributing to burnout. More specifically, this research seeks to analyze whether attention distraction, poor time management, or laziness has the strongest impact on burnout dimensions, including emotional exhaustion, cynicism, and inefficacy. By identifying these key influences, this study aims to provide valuable insights into how medical institutions can develop effective interventions such as time management training, mindfulness programs, and self-regulation strategies to mitigate procrastination-related burnout and enhance academic resilience among medical students.

LITERATURE REVIEW

Previous studies have consistently demonstrated a significant association between academic procrastination and psychological distress among students, particularly in demanding academic environments such as medical schools (Sirois & Pychyl, 2013; Zhang et al., 2018). Procrastination has been conceptualized not only as a time management failure but also as a manifestation of self-regulation deficits, avoidance coping, and perfectionism (Steel, 2007; Rozental & Carlbring, 2014). These tendencies are exacerbated by digital distractions and workload overload, which are prevalent among modern medical students (Meier et al., 2016; Reinecke et al., 2018).

Burnout, as defined by Maslach and Jackson (1981), consists of three core dimensions: emotional exhaustion, cynicism, and inefficacy. In medical education, burnout is a well-documented phenomenon resulting from academic overload, prolonged stress, and emotional strain (Dyrbye et al., 2014). Several studies have found that procrastination especially when habitual contributes to increased emotional exhaustion and reduced motivation (Gustavson & Miyake, 2017).

Notably, specific dimensions of procrastination appear to affect different aspects of burnout. For instance, distraction of attention and poor time management have been identified as strong predictors of emotional exhaustion, while disengagement or laziness may be more closely linked to cynicism (Broadbent & Poon, 2015; Zhang et al., 2018). In contrast, the role of procrastination in academic inefficacy remains less clear, with some studies suggesting that active procrastinators may maintain a sense of competence despite delaying tasks (Chu & Choi, 2005).

METHODOLOGY

This study employed a quantitative, correlational research design to investigate the relationship between academic procrastination and burnout among medical students at UIN Maulana Malik Ibrahim Malang, Indonesia. A total sampling method was used, including 93 actively enrolled medical students, while those on academic leave or with incomplete responses were excluded. Data were collected using a self-reported questionnaire integrating two validated psychometric instruments: the Academic Procrastination Scale (APS), which measures six procrastination indicators, and the Maslach Burnout Inventory-Student Survey (MBI-SS), assessing three burnout dimensions (emotional exhaustion, cynicism, and inefficacy). Responses were rated on a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), with higher scores indicating increased procrastination and burnout levels. Instrument reliability was confirmed through a pilot study (n = 30), yielding Cronbach's alpha values above 0.80, ensuring strong internal consistency. Ethical approval was obtained from the Institutional Review Board (IRB) of UIN Maulana Malik Ibrahim Malang, and all participants provided informed consent before participation.

Data analysis was conducted using SPSS version 26. Since the Kolmogorov-Smirnov test indicated a non-normal distribution, Spearman's rank correlation test was applied to assess the relationship between procrastination and burnout dimensions, with a significance threshold of $p < 0.05$. The correlation strength was classified as weak (0.1–0.3), moderate (0.3–0.5), or strong (>0.5), and all statistical interpretations were made within a 95% confidence interval. To identify the strongest predictors of burnout, procrastination indicators were analyzed individually against burnout dimensions. This methodological approach, incorporating validated measurement tools and robust statistical techniques, ensured reliable findings to inform targeted interventions aimed at reducing procrastination-related burnout in medical students.

RESULT

The analysis revealed a moderate positive correlation ($r = 0.430$, $p < 0.05$) between academic procrastination and burnout, indicating that students who frequently procrastinate tend to experience higher levels of burnout. Among the procrastination indicators, distraction of attention ($r = 0.518$, $p < 0.05$) emerged as the strongest predictor of academic exhaustion (B1), suggesting that students who struggle to maintain focus on academic tasks are more prone to mental and physical fatigue. Poor time management ($r = 0.476$, $p < 0.05$) was also significantly associated with exhaustion, reinforcing the idea that students who fail to plan and structure their academic workload tend to experience greater stress and fatigue.

The results further showed that laziness (P6) was significantly correlated with cynicism (B2) ($r = 0.409$, $p < 0.05$), indicating that students who procrastinate due to low motivation and reluctance to engage with academic tasks tend to develop a negative perception of their education and reduced academic commitment. This finding aligns with previous research (Zhang et al., 2018), which suggests that students experiencing disengagement often become indifferent and emotionally detached from their studies. Interestingly, a negative

correlation ($r = -0.411$, $p < 0.05$) was observed between procrastination and inefficacy (B3), suggesting that students who procrastinate do not necessarily perceive themselves as incompetent. Instead, they may engage in last-minute productivity surges, a phenomenon linked to active procrastination (Chu & Choi, 2005), where individuals deliberately delay tasks to enhance efficiency under pressure. However, this effect may not apply universally, as medical students are typically required to engage in continuous learning rather than deadline-driven tasks, making further investigation into active vs. passive procrastination in medical education essential.

To further explore the relationship between procrastination and burnout, additional descriptive statistics were analyzed. Students with poor time management skills reported significantly higher exhaustion levels ($M = 20.12$, $SD = 3.57$) compared to those who demonstrated better organizational habits. Similarly, students who exhibited higher distraction tendencies ($M = 10.30$, $SD = 1.78$) experienced greater academic fatigue, reinforcing the idea that cognitive overload from external distractions contributes significantly to burnout. These results indicate that time management deficiencies and attentional distractions play a crucial role in predicting academic exhaustion among medical students.

Given these findings, it is evident that time management issues and distraction of attention are the strongest predictors of burnout, while laziness is more closely associated with cynicism rather than exhaustion. The negative correlation between procrastination and inefficacy suggests that some students may still perceive themselves as competent despite frequent procrastination. However, given the demanding nature of medical education, it is unclear whether this confidence translates into sustained academic success.

Overall, the results emphasize the need for structured interventions targeting time management training, digital distraction control strategies, and self-regulation techniques to mitigate the negative effects of procrastination on burnout. The findings suggest that enhancing academic planning skills and minimizing external distractions could significantly reduce mental exhaustion and academic disengagement. Future research should explore intervention-based approaches aimed at addressing procrastination-induced burnout and promoting academic resilience among medical students, potentially incorporating behavioral training, self-regulation strategies, and mindfulness techniques to improve student well-being.

DISCUSSION

The findings of this study confirm that academic procrastination significantly contributes to burnout among medical students, with distraction of attention and poor time management emerging as the strongest predictors of academic exhaustion. This supports previous research indicating that students who struggle to maintain focus or efficiently manage their academic workload are more likely to experience burnout (Zhang et al., 2018). The moderate positive correlation between procrastination and burnout ($r = 0.430$, $p < 0.05$) aligns with findings from Rahimi and Hall (2021), who reported that students exhibiting higher procrastination tendencies experienced greater psychological distress and

academic fatigue. These results emphasize that medical students, who are required to process extensive and complex information, are particularly vulnerable to burnout when they frequently postpone academic tasks due to distractions or poor time management.

The strong correlation between distraction of attention and academic exhaustion ($r = 0.518$, $p < 0.05$) highlights the detrimental effects of modern digital distractions, such as excessive engagement with social media and entertainment platforms, on students' ability to concentrate on academic responsibilities. This finding is consistent with studies by Meier et al. (2016) and Reinecke et al. (2018), which demonstrated that frequent digital distractions impair cognitive control and negatively impact academic performance. Given the increasing reliance on digital technology in higher education, burnout prevention strategies should incorporate interventions aimed at reducing digital distractions, such as self-regulation techniques and structured digital detox programs (Oberst et al., 2020). Additionally, medical institutions should consider establishing structured study environments that minimize external distractions and promote deep learning practices, ensuring that students can maintain focus and enhance information retention.

The significant correlation between poor time management and academic exhaustion ($r = 0.476$, $p < 0.05$) further underscores the critical role of organizational skills in academic well-being. This finding aligns with previous research by Broadbent and Poon (2015), which found that students who exhibit effective time management skills tend to achieve better academic performance and lower stress levels. Time mismanagement, including missed deadlines, last-minute studying, and ineffective task prioritization, has been widely associated with increased anxiety and cognitive overload (Klingsieck, 2013). Given that medical students face demanding academic schedules, the inability to manage time effectively can lead to compounded stress, sleep deprivation, and overall reduced academic efficiency. Therefore, incorporating time management training into medical curricula may serve as a proactive measure to prevent burnout and enhance student productivity.

Interestingly, the negative correlation between procrastination and inefficacy ($r = -0.411$, $p < 0.05$) suggests that not all procrastinators perceive themselves as academically ineffective. This finding supports the concept of active procrastination, where some students deliberately delay academic tasks to enhance performance under pressure (Chu & Choi, 2005). While active procrastinators may thrive under last-minute conditions, passive procrastinators—who delay tasks due to anxiety, lack of motivation, or poor self-regulation—are more susceptible to academic burnout (Gustavson & Miyake, 2017). The presence of active procrastinators within the medical student population suggests that some students may utilize procrastination as a strategic coping mechanism rather than as an avoidance behavior. However, given the high cognitive demands of medical education, relying on last-minute productivity may not be a sustainable approach. Future studies should further explore the distinction between active and passive procrastination in medical

education and its long-term effects on academic performance and psychological well-being.

The relationship between laziness and cynicism ($r = 0.409$, $p < 0.05$) indicates that students who procrastinate due to low motivation or disengagement are more likely to develop negative attitudes toward their education. This finding is consistent with prior research demonstrating that students experiencing burnout often exhibit emotional detachment, decreased effort, and a negative perception of their academic experience (Dyrbye et al., 2014). Cynicism, a key component of burnout syndrome, often manifests as a loss of interest in academic tasks and reduced academic commitment, further exacerbating motivation deficits (Maslach et al., 2001). This suggests that interventions focusing on improving student motivation, fostering academic engagement, and reinforcing a positive learning environment may help mitigate procrastination-related cynicism and enhance overall student well-being.

The results of this study have several practical implications for higher education institutions, particularly in medical education. Given that poor time management and attention distractions are strong predictors of burnout, universities should implement targeted interventions such as time management workshops, cognitive-behavioral techniques for attention regulation, and structured mentorship programs (Van Eerde, 2003). These interventions could equip students with practical strategies to manage academic workload, reduce procrastination tendencies, and enhance self-regulation skills. Furthermore, incorporating digital literacy programs that educate students on managing screen time and avoiding distractions could be beneficial in promoting a healthier academic lifestyle.

Future research should focus on longitudinal studies to assess the long-term effectiveness of procrastination intervention programs and explore the role of self-regulation strategies in reducing procrastination-induced burnout. Additionally, further investigation is needed to differentiate active vs. passive procrastination and determine whether active procrastinators maintain long-term academic success or experience delayed burnout due to their reliance on last-minute productivity. Addressing these challenges is essential for fostering a healthier, more productive academic environment for medical students, ensuring that they develop effective coping mechanisms to manage academic stress and sustain long-term success in their careers.

CONCLUSIONS AND RECOMMENDATIONS

This study confirms that academic procrastination contributes significantly to burnout among medical students, with distraction of attention and poor time management being the strongest predictors of academic exhaustion. While some students engage in active procrastination, the majority experience chronic stress, cynicism, and disengagement from learning, exacerbating burnout symptoms.

These findings highlight the need for structured interventions, including time management training, cognitive-behavioral strategies, and academic mentorship programs, to help students manage procrastination and reduce burnout. Universities should also integrate mental health awareness programs

and stress management workshops to enhance student resilience. Future research should explore longitudinal studies on procrastination-induced burnout and assess the effectiveness of targeted interventions to foster a healthier academic environment for medical students.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

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