Time Management and Academic Stress among Final-year University Students in Yogyakarta

Eni Anggraini[1], Narastri Insan Utami[2]

{190810702@student.mercubuana-yogya.ac.id[1], narastri@mercubuana-yogya.ac.id[2]}

Faculty of Psychology, Mercu Buana University Yogyakarta[12]

Abstract. This study aims to analyze the relationship between time management and academic stress among final-year university students in Yogyakarta. A quantitative correlational approach was used, with a sample of 211 students selected through purposive sampling. Data were collected using the Time Management Behavior Scale (TMBS) and the Student Academic Stress Scale (SASS). Pearson correlation analysis revealed a significant negative relationship between time management and academic stress, with a correlation coefficient of $r = –0.856$ and a significance level of $p < .001$. These results support the hypothesis that better time management is associated with lower academic stress. The time management variable explained 73% of the variance in academic stress. The findings highlight the importance of developing time management skills as a strategy to reduce stress among final-year university students.

Keywords: Time management, academic stress, final-year students, correlational study, higher education

1. Introduction

University students are individuals enrolled in higher education institutions who are undergoing a formal learning process [1] In their academic journey toward earning a bachelor's degree, students are required to complete a final project, often in the form of a thesis, as a graduation requirement [2] [3], thesis writing requires students to demonstrate their ability to identify problems, conduct research, and analyze data scientifically. [4] emphasize that final-year students are expected to work independently under limited time constraints, which increases the pressure experienced during the thesis-writing process. [5] also state that academic stress arises when students face high academic demands, performance expectations, coursework, and peer competition.

Previous studies have reported a high prevalence of academic stress among university students. [6] found that 75% of students experienced moderate to high stress [7] reported 88% of students experienced academic stress, while [8] found 71.3% of final-year students experienced high stress. These results demonstrate that academic stress remains a significant issue, especially for final-year students.

Interviews with seven final-year students from various universities in Yogyakarta revealed various symptoms of academic stress, such as nausea, dizziness, emotional instability, and

withdrawal from social interaction. These findings indicate that academic stress affects physical, emotional, and behavioral aspects. One key factor that may influence this condition is time management. Therefore, this study aims to quantitatively examine the relationship between time management and academic stress among final-year university students in Yogyakarta.

2. Literature Review

2.1 Academic Stress

Academic stress is a type of stress that arises from academic demands that exceed an individual's coping capacity [9]. [10] define academic stress as an imbalance between academic demands and available resources, resulting in physiological, emotional, and behavioral responses.

Factors such as workload, performance pressure, limited time, and competition contribute to this stress [11]. This stress can lead to mental health issues such as anxiety, depression, and physical exhaustion [12].

Final-year university students are particularly vulnerable due to the increasing complexity of tasks, such as thesis writing and the pressure to graduate[13]. This group frequently experiences symptoms such as disrupted sleep patterns, reduced motivation, and an increased risk of mental health problems like anxiety and depression [14]. Therefore, effective coping strategies such as prioritization, relaxation techniques, and seeking social support are essential [15]

Sarafino [9]) identified four dimensions of academic stress: biological (e.g., fatigue, headaches), emotional (e.g., anxiety, frustration), cognitive (e.g., poor concentration), and behavioral (e.g., avoidance, procrastination).

a. Biological: Physical responses to stress, including elevated heart rate and cortisol levels.
b. Emotional: Stress often leads to emotional reactions such as anxiety, fear, or frustration. In academic situations, students can feel pressured when facing a large task or a difficult test. Feelings of anxiety, frustration, or fear, particularly before exams or deadlines [16]
c. Cognitive: Stress also affects cognitive processes, such as the ability to concentrate, remember, and make decisions. Impaired focus, memory, and decision-making abilities [17]
d. Behavioral: Stress can be seen from behavioral changes, such as delaying work, avoiding tasks, or even isolating yourself, while adaptive behaviors, such as managing time well, can be strategies to reduce stress, including academic stress. Avoidance behaviors, procrastination, or social withdrawal, which can exacerbate stress if not addressed adaptively.

According [18] explained that time management significantly affects academic stress, as it includes planning, prioritizing, avoiding procrastination, and monitoring time effectively. This is because according to [18]time management effective time management not only reduces stress but also improves academic performance. [19]showed that with effective time management students can avoid the accumulation of tasks and deadlines that can cause stress.

2.2 Time Management

Time management is a critical factor influencing academic stress. According to [18], explained that time management significantly affects academic stress, as it includes planning, prioritizing, avoiding procrastination, and monitoring time effectively. [19] define time management as the process of planning, organizing, and allocating time efficiently to complete tasks and achieve goals. [20] emphasizes the prioritization of tasks based on their importance, while [19] argues that effective time management involves aligning daily tasks with long-term personal values and goals, thereby improving not only productivity but also life satisfaction. Time management consists of three main factors: short-range planning, time attitude, and long-range planning [19].Effective short-term and long-term planning, supported by a positive attitude toward time, allows students to handle workloads systematically and avoid stress :

a. Short-Range Planning: includes the organization of activities carried out in the near future, such as daily or weekly, focusing on prioritization and management of daily tasks.
b. Time Attitudes: Reflect how a person views and appreciates the use of their time. In addition, individuals with a positive attitude towards time tend to be more aware of the importance of effective time management. Proactive attitudes towards time are associated with lower stress levels, whereas passive attitudes often correlate with poor academic performance and heightened stress [22].
c. Long-Range Planning: involves the ability to set goals and strategies over a longer period of time, such as monthly or annually, as well as Plan steps to achieve them.

2.3 Relationship between Time Management and Academic Stress

Several studies support the negative correlation between time management and academic stress. Inability to manage time is often the main cause of stress in this group, because time management involves the ability to plan, organize, and control time to achieve certain goals, and this is closely related to academic stress [21] This is confirmed by the research of Misra, and McKean (2000), who showed that effective use of time as a behavioral strategy can help college students reduce the pressure of a heavy academic workload. According to [21] time management has three aspects, namely short-range planning, time attitudes, and long-range planning, the first aspect of short-range planning is to include the arrangement of activities carried out in the near future, such as daily or weekly, with a focus on prioritization and management of daily tasks. According to [22] short-range planning is an important element of effective time management, as it helps individuals strategically allocate time to complete urgent tasks and avoid the onset of academic stress.

The second aspect, time attitudes, reflects how individuals perceive and value the use of their time. [22] also highlighted the importance of attitudes toward time in reducing academic stress. They found that students with proactive attitudes toward time were better able to plan their tasks, prioritize effectively, and meet deadlines without experiencing excessive pressure. In contrast, passive time attitudes such as indifference to time use were associated with decreased academic performance and increased stress levels.

The third aspect, long-range planning, involves the ability to set goals and strategies over extended periods, such as monthly or yearly, and to plan the necessary steps to achieve them. [18] also found that effective long-range planning is associated with better academic performance and reduced stress levels. Their findings suggest that students who engage in long-range planning are more likely to break down large tasks into smaller, more manageable parts, thereby improving work efficiency and reducing stress. As a result, they are better equipped to avoid feelings of being overwhelmed when facing major assignments, which are often a source of academic stress.

Based on the explanation above, it can be concluded that time management has a significant impact on academic stress among final-year university students in Yogyakarta [23]found that students with better time management skills reported significantly lower levels of academic stress. This finding aligns with previous literature suggesting that enhancing students' time management capabilities can be an effective strategy for stress reduction.

Based on the aforementioned theoretical framework, the hypothesis proposed in this study is: "There is a significant negative relationship between time management and academic stress among final-year university students in Yogyakarta"

3. Method

3.1 Participants

The participants were 211 final-year students from several universities in Yogyakarta who were currently working on their theses. The inclusion criteria were: (a) students enrolled in the final year of undergraduate studies, and (b) students in the process of completing a thesis. Data were collected using purposive sampling between March and May 2024.

3.2 Instruments

Two standardized instruments were used:

a. Time Management Behavior Scale (TMBS) – Developed by (Britton and Tesser, 1991), this 33-item scale assesses short-range planning, time attitude, and long-range planning on a 4-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree). Cronbach's α = 0.86. Example: "I make a list of things I need to do each day."
b. Student Academic Stress Scale (SASS) – Adapted from Misra, and McKean (2000), this 40-item scale measures physiological, emotional, cognitive, and behavioral stress. Items are rated on a 4-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree). Cronbach's α = 0.88. Example: "I feel anxious before examinations."

Two psychological scales were utilized in the study: the Time Management Behavior Scale (TMBS) and the Student Academic Stress Scale (SASS). The scoring system is outlined below:

Table 1. Scoring Criteria for Questionnaire Responses

No	Responses	Score
1	Strongly Agree (SA)	4
2	Agree (A)	3
3	Disagree (D)	2
4	Strongly Disagree (SD)	1

Source : Sugiyono (2019)

3.3 Data Analysis

Pearson Product-Moment correlation was used to examine the relationship between time management and academic stress using SPSS 26. Normality and linearity tests confirmed data suitability.

4. Result

4.1 Assumption Testing

Normality Test

Based on the Kolmogorov-Smirnov test, the significance value was 0.200 ($p > 0.05$), indicating that the data is normally distributed.

Linearity Test

Linearity test results showed a significance value of 0.000 ($p < 0.05$), indicating a linear relationship between time management and academic stress.

4.2 Hypothesis Testing

The Pearson product-moment correlation analysis revealed a significant negative correlation between time management and academic stress among final-year students in Yogyakarta ($r = -0.856$, $p < 0.05$). This indicates that the better the time management skills, the lower the level of academic stress experienced. The coefficient of determination (R^2) was 0.730, meaning that time management accounted for 73% of the variance in academic stress. The remaining 27% is likely influenced by other factors not examined in this study.

4.3 Categorization of Variables
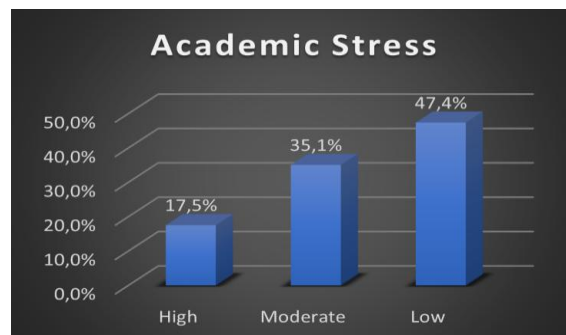
Academic Stress Levels

Chart 1. Academic Stress Levels among Final-Year Students

As illustrated in Chart 1, the majority of final-year students (47.4%) experienced low levels of academic stress. Meanwhile, 35.1% of students fell into the moderate stress category, and 17.5% reported experiencing high levels of academic stress.

Time Management Levels

Chart 2. Time Management Levels among Final-Year Students

As presented in Chart 2, most students (47.4%) demonstrated high time management skills. This was followed by 37.4% of students with moderate time management skills, and 15.2% with low levels of time management ability.

4.4 Summary of Findings
These findings support the hypothesis that there is a significant negative relationship between time management and academic stress among final-year university students. Effective time management appears to be a key factor in reducing academic stress, as shown by the high proportion of students with low stress and good time management capabilities.

5. Discussion

The results of this study indicate a significant negative relationship between time management and academic stress among final-year students in Yogyakarta, with a correlation coefficient (rxy) = -0.856 and significance level p = 0.000 (p < 0.05). These findings confirm the proposed hypothesis that better time management is associated with lower academic stress, and vice versa.

This study found a significant negative correlation between time management and academic stress among final-year students. Students with better time management reported lower stress levels, consistent with findings by [21], [25], [22]. Effective planning and positive attitudes toward time reduce academic pressure by minimizing procrastination and workload accumulation.

The results also show that most students had moderate to high time management and low to moderate academic stress. This suggests that many students are capable of adapting to academic

challenges through structured time use. However, the reliance on self-report data may introduce bias, and the correlational design limits causal inference. Future research could use longitudinal or experimental methods to examine the causal relationship between time management and stress.

Practically, universities should implement workshops to improve time management skills among final-year students, focusing on scheduling, prioritization, and long-term planning. The participant composition shows a predominance of male students (70.6%) over female students (29.4%). [26] notes that female students excel in metacognitive strategies and time management skills. However, this study does not specifically state that males are better at planning, and it is important to note that such differences are generalizations and may not apply to every individual.

Furthermore, 72.5% of students live with family, while 27.5% live in boarding houses. This is consistent with research conducted by [27] at the Faculty of Medicine, Andalas University, which showed that 64.4% of students living with their parents experienced stress, compared to 53.7% of students living independently. Another study [28] at the Faculty of Health, Jenderal Achmad Yani University Yogyakarta, found that students who migrated from other regions experienced more severe stress (10.64%) compared to non-migrant students (6.92%). Nonetheless, no statistically significant differences were found. According to [29] stress results from the individual's evaluation of their ability to cope with environmental demands.

Time management in this study was assessed through three key factors: short-range planning, time attitude, and long-range planning. Each factor significantly affected academic stress:

a. Short-range planning helps avoid last-minute stress by managing daily academic tasks efficiently (26). Students with effective short-range planning skills tend to avoid academic procrastination and complete their assignments more systematically [22]. This directly contributes to a reduction in academic stress, as tasks do not accumulate within a limited timeframe. In contrast, students with poor short-range planning skills are more likely to experience heightened pressure as deadlines approach [25].

b. Time attitude refers to an individual's outlook on time, including how well they value and utilize the time available to them. [30] stated that individuals with a positive attitude toward time tend to experience lower levels of stress because they are more efficient in managing academic responsibilities. Poor attitudes toward time such as a tendency to procrastinate or a lack of appreciation for time can increase academic stress, as students feel less prepared when deadlines draw near [31]. Therefore, one's attitude toward time is a crucial factor in determining the effectiveness of time management and its impact on students' academic well-being.

c. Long-range planning refers to students' ability to plan for long-term academic tasks, such as preparing a thesis or other major projects. According to [32] long-range planning can reduce stress by ensuring that students do not rush through assignments that require extended periods to complete. Students who are able to plan their studies over the long term tend to be more structured in completing their theses, thereby avoiding the academic stress caused by poor preparation [22]. Conversely, students who lack long-range planning often

experience higher levels of academic stress, especially during the final stages of their studies, as they do not have a clear strategy for completing their final projects [18)].

The coefficient of determination ($R^2 = 0.730$) indicates that time management accounts for 73% of the variance in academic stress. The remaining 27% is explained by other unexamined factors. From the categorization results, 17.5% of students experience high academic stress, 35.1% moderate, and 47.4% low. In terms of time management, 47.4% of students possess high abilities, 37.4% moderate, and 15.2% low. This suggests that most final-year students in Yogyakarta exhibit low academic stress and high time management skills.

6. Conclusion

This study concludes that time management has a significant negative relationship with academic stress among final-year university students in Yogyakarta. Students with stronger time management abilities tend to experience lower stress during the thesis process.

Universities are encouraged to provide time management training as a preventive strategy for academic stress. Future research should explore additional variables such as coping, motivation, and social support using diverse methodologies.

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