



Self-Regulation Strategies Based on Cognitive Behavioral Therapy in Reducing Academic Procrastination among University Students

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Abstract

Academic procrastination is a common problem among university students and has negative effects on academic performance, learning consistency, and psychological well-being. This article aims to examine self-regulation strategies based on Cognitive Behavioral Therapy (CBT) in reducing academic procrastination among university students. This study employed a library research design by reviewing relevant books, journal articles, systematic reviews, and previous studies related to academic procrastination, self-regulation, self-regulated learning, CBT, and counseling interventions. The literature was analyzed thematically by identifying, classifying, and synthesizing concepts and findings related to the causes of academic procrastination and intervention strategies. The results of the literature synthesis show that academic procrastination is influenced by cognitive, emotional, motivational, and behavioral factors, such as low self-efficacy, fear of failure, perfectionism, irrational beliefs, emotional avoidance, and weak self-regulation. CBT is relevant for reducing academic procrastination because it helps students identify maladaptive thoughts, reconstruct irrational beliefs, and develop more adaptive academic behaviors. CBT-based self-regulation strategies include self-monitoring, cognitive restructuring, goal setting, task breakdown, time management, self-instruction, self-reinforcement, behavioral activation, self-management, and implementation intention. These strategies can help students improve self-control, reduce avoidance behavior, manage academic tasks more effectively, and strengthen learning autonomy. Therefore, CBT-based self-regulation strategies can be recommended as an applicable counseling approach to reduce academic procrastination among university students.

Abstrak

Kata Kunci:

Prokrastinasi Akademik,
Self-Regulation, Cognitive

Prokrastinasi akademik merupakan permasalahan umum yang banyak dialami mahasiswa dan berdampak negatif terhadap prestasi akademik, konsistensi belajar, serta kesejahteraan

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psikologis. Artikel ini bertujuan untuk mengkaji strategi self-regulation berbasis Cognitive Behavioral Therapy (CBT) dalam mengurangi prokrastinasi akademik pada mahasiswa. Penelitian ini menggunakan metode studi kepustakaan dengan menelaah buku, artikel jurnal, systematic review, dan hasil penelitian terdahulu yang relevan dengan prokrastinasi akademik, self-regulation, self-regulated learning, CBT, dan intervensi konseling. Literatur dianalisis secara tematik dengan mengidentifikasi, mengklasifikasikan, dan mensintesis konsep serta temuan penelitian terkait faktor penyebab prokrastinasi akademik dan strategi intervensinya. Hasil sintesis literatur menunjukkan bahwa prokrastinasi akademik dipengaruhi oleh faktor kognitif, emosional, motivasional, dan perilaku, seperti rendahnya efikasi diri, takut gagal, perfeksionisme, keyakinan irasional, penghindaran emosi negatif, dan lemahnya regulasi diri. CBT relevan digunakan untuk mengurangi prokrastinasi akademik karena membantu mahasiswa mengidentifikasi pikiran maladaptif, merekonstruksi keyakinan irasional, dan membangun perilaku akademik yang lebih adaptif. Strategi self-regulation berbasis CBT meliputi self-monitoring, cognitive restructuring, goal setting, task breakdown, time management, self-instruction, self-reinforcement, behavioral activation, self-management, dan implementation intention. Strategi tersebut dapat membantu mahasiswa meningkatkan kontrol diri, mengurangi perilaku menghindar, mengelola tugas akademik secara lebih efektif, serta memperkuat kemandirian belajar. Dengan demikian, strategi self-regulation berbasis CBT dapat direkomendasikan sebagai pendekatan konseling yang aplikatif untuk mengurangi prokrastinasi akademik pada mahasiswa.

INTRODUCTION

Academic procrastination is one of the most common problems experienced by university students and has become a serious concern in higher education. It refers to the intentional delay of academic tasks, such as completing assignments, preparing for examinations, reading course materials, or working on research projects, despite being aware of the possible negative consequences. Procrastination is not merely a matter of poor time management, but also reflects difficulties in regulating motivation, cognition, emotion, and behavior. Araya-Castillo et al. (2023) explain that academic procrastination among university students is a multidimensional problem influenced by cognitive, motivational, emotional, and behavioral factors. Similarly, Fentaw et al. (2022) show that procrastination is a real academic problem among university students because it interferes with learning discipline, task completion, and academic responsibility.

The negative effects of academic procrastination can be seen in various aspects of students' academic and psychological functioning. Students who frequently postpone academic tasks tend to experience poor learning preparation, accumulated assignments, low task quality, academic stress, and decreased academic performance. Alaya et al. (2021) found that academic procrastination is associated with academic failure and weak

academic performance, indicating that procrastination has direct consequences for students' achievement. Song et al. (2024) also emphasize that academic procrastination can be predicted by various individual and learning-related factors, suggesting that procrastination is not a single behavior but a complex pattern shaped by students' psychological conditions and academic environments. Therefore, academic procrastination needs to be understood not only as a behavioral delay but also as a psychological and educational problem that requires appropriate intervention.

Several psychological factors contribute to academic procrastination among university students. Low self-efficacy, maladaptive perfectionism, fear of failure, irrational beliefs, anxiety, and poor metacognitive awareness are often associated with students' tendency to delay academic tasks. Ashraf et al. (2023) argue that self-efficacy and perfectionism play an important role in academic procrastination because students who doubt their ability or set unrealistically high standards may avoid starting or completing tasks. Huang et al. (2023) also indicate that perfectionism may contribute to procrastination when students feel that their work must meet unrealistic expectations. In addition, Balkis et al. (2024) explain that fear of failure and irrational academic beliefs may strengthen procrastination because students tend to avoid tasks that are perceived as threatening to their self-worth. These findings show that academic procrastination is closely related to maladaptive cognitive patterns and emotional avoidance.

One important psychological construct related to academic procrastination is self-regulation. Self-regulation refers to students' ability to plan, monitor, control, and evaluate their thoughts, emotions, and behaviors in order to achieve academic goals. In academic contexts, self-regulated students are able to set learning goals, manage time, control distractions, monitor progress, and evaluate the effectiveness of their learning strategies. Elizondo et al. (2024) found that self-regulation is closely related to students' motivation, learning strategies, and persistence in completing academic tasks. From the perspective of self-regulation theory, Zhao et al. (2021) argue that procrastination reflects difficulties in self-control and goal-directed behavior. Thus, weak self-regulation may cause students to postpone tasks, avoid academic responsibilities, and fail to maintain consistent learning behavior.

The role of self-regulation becomes increasingly important in contemporary learning environments, where students are exposed to many forms of distraction, especially digital distraction. Online learning, smartphones, social media, and internet use may provide learning opportunities, but they may also increase the risk of academic procrastination when students are unable to regulate their attention and behavior. Ma et al. (2022) found that online self-regulated learning is related to academic procrastination, particularly in digital learning contexts. Karakaya Özyer & Altinsoy (2023) also show that problematic internet use, academic self-efficacy, and self-regulated online learning are associated with academic procrastination. These findings indicate that strengthening self-regulation is essential for helping students manage distractions and maintain academic productivity.

Efforts to reduce academic procrastination should therefore focus on

strengthening students' self-regulation skills. Self-regulated learning strategies can help students improve their ability to set goals, manage time, monitor progress, evaluate learning outcomes, and maintain motivation. Tao et al. (2025) found that self-regulated learning strategies can reduce academic procrastination and improve students' academic success. Theobald (2021) also shows that self-regulated learning training programs can enhance university students' academic performance and motivation. These findings suggest that self-regulation is not only a theoretical concept but also a practical skill that can be developed through structured intervention.

One counseling approach that is relevant for strengthening self-regulation and reducing academic procrastination is Cognitive Behavioral Therapy (CBT). CBT is based on the assumption that thoughts, emotions, and behaviors are interconnected. In the context of academic procrastination, students may delay tasks because of maladaptive thoughts such as "I will fail," "this task is too difficult," "I must do it perfectly," or "I can only work under pressure." These thoughts may produce anxiety, avoidance, and task delay. Ugwuanyi et al. (2020) found that Cognitive Behavioral Therapy is effective in reducing academic procrastination behavior because it helps students identify and modify irrational thoughts that maintain procrastination. More recently, de Haas et al. (2025) demonstrated that group CBT can reduce procrastination among college students, indicating that CBT can be applied in both individual and group counseling settings.

CBT is particularly relevant because it combines cognitive and behavioral techniques. Cognitive techniques, such as cognitive restructuring, help students identify irrational beliefs and replace them with more realistic and adaptive thoughts. Behavioral techniques, such as self-monitoring, time management, graded task assignment, behavioral activation, and self-reinforcement, help students develop more productive academic habits. Tolan (2023) emphasizes that psychoeducation based on cognitive behavioral theory can help university students develop coping skills for dealing with academic procrastination. Similarly, Novalia et al. (2023) propose that cognitive behavior counseling combined with self-regulated learning techniques can support students in reducing procrastination and improving academic responsibility.

Although previous studies have discussed academic procrastination, self-regulation, and CBT separately, there is still a need to synthesize these concepts into a practical counseling strategy. Existing studies have shown that procrastination is influenced by cognitive, emotional, and behavioral factors, while self-regulation and CBT offer complementary mechanisms for intervention. Furlan & Cristofolini (2022) and Turner & Hodis (2023) highlight that interventions to reduce academic procrastination should be theoretically grounded and practically applicable. Therefore, this article focuses on self-regulation strategies based on Cognitive Behavioral Therapy as an integrative approach to reducing academic procrastination among university students. This study aims to explain how CBT-based self-regulation strategies can help students identify maladaptive thoughts, manage emotions, control avoidance behavior, and develop more adaptive academic habits.

METHOD

This study employed a library research design to examine self-regulation strategies based on Cognitive Behavioral Therapy (CBT) in reducing academic procrastination among university students. Library research was considered appropriate because the purpose of this study was not to collect empirical field data, but to analyze, compare, and synthesize existing theoretical and empirical studies related to academic procrastination, self-regulation, self-regulated learning, and CBT-based counseling interventions. This design allowed the researcher to develop a conceptual and practical understanding of how self-regulation strategies can be integrated with CBT principles to address academic procrastination.

The data sources used in this study consisted of books, peer-reviewed journal articles, systematic reviews, and previous empirical studies relevant to the main topic. The literature was selected based on several key themes, namely academic procrastination among university students, psychological factors contributing to procrastination, self-regulation and self-regulated learning, Cognitive Behavioral Therapy, self-management techniques, cognitive restructuring, time management, behavioral activation, and counseling interventions for academic procrastination. Previous reviews by Furlan & Cristofolini (2022), Ramadhani et al. (2026), and Turner & Hodis (2023) were used as important references because they provide broader discussions of the theoretical foundations, causal factors, and intervention models related to academic procrastination.

The literature search was conducted by using several keywords and Boolean search combinations, such as “academic procrastination” AND “university students,” “self-regulation” OR “self-regulated learning” AND “academic procrastination,” “Cognitive Behavioral Therapy” OR “CBT” AND “academic procrastination,” “self-management” AND “procrastination,” “cognitive restructuring” AND “academic procrastination,” and “counseling intervention” AND “academic procrastination.” These keywords were used to identify studies that directly discussed the relationship between procrastination, self-regulation, and CBT-based intervention strategies.

The inclusion criteria for the selected literature were as follows: first, the literature had to discuss academic procrastination, self-regulation, self-regulated learning, CBT, or counseling strategies related to procrastination; second, the literature had to be relevant to university students or academic contexts; third, the literature had to provide theoretical explanation, empirical evidence, or intervention models that could support the development of CBT-based self-regulation strategies; and fourth, priority was given to recent studies and review articles to ensure the relevance of the discussion to current academic and counseling contexts. Meanwhile, literature that was not directly related to academic procrastination, self-regulation, or CBT was excluded from the main analysis.

Data analysis was conducted using thematic analysis. The selected literature was examined, classified, and synthesized based on several main themes: academic procrastination among university students, psychological factors contributing to procrastination, self-regulation as a protective factor, CBT as a counseling approach, and CBT-based self-regulation strategies. This thematic organization made it possible to

identify the connection between maladaptive thoughts, emotional avoidance, self-regulation difficulties, and procrastination behavior. The analysis also focused on identifying practical techniques that can be applied in counseling, such as self-monitoring, cognitive restructuring, goal setting, time management, self-instruction, self-reinforcement, and behavioral activation.

The results of the literature synthesis were then used to construct an integrative framework of CBT-based self-regulation strategies for reducing academic procrastination. In this framework, CBT provides the cognitive and behavioral basis for identifying irrational beliefs, modifying maladaptive thoughts, and changing avoidance behavior, while self-regulation provides the practical structure for planning, monitoring, controlling, and evaluating academic behavior. Therefore, the method of this study emphasizes conceptual synthesis rather than statistical analysis, in line with the nature of library research and theoretical review.

RESULTS AND DISCUSSION

Academic Procrastination among University Students

Academic procrastination is a common academic problem among university students. It refers to the intentional delay of starting, working on, or completing academic tasks even though students are aware that such delay may produce negative consequences. In higher education, procrastination may appear in various forms, such as delaying assignments, postponing examination preparation, avoiding reading tasks, delaying thesis writing, or completing academic work only when deadlines are very close. This behavior is not simply a problem of laziness, but a complex academic behavior influenced by students' cognitive, emotional, motivational, and behavioral conditions.

Araya-Castillo et al. (2023) explain that academic procrastination among university students is a multidimensional phenomenon. It involves not only the act of delaying tasks but also students' difficulties in managing motivation, regulating emotions, maintaining attention, and sustaining goal-directed behavior. This means that procrastination cannot be understood only as poor time management. Instead, it reflects a broader problem in the way students regulate themselves in academic situations. Students may understand the importance of completing academic tasks, but they still fail to initiate or maintain effort because they experience anxiety, low motivation, fear of failure, or difficulty controlling distractions.

Academic procrastination has serious consequences for students' academic performance and psychological well-being. Alaya et al. (2021) found that academic procrastination is related to academic failure and reduced academic performance. Students who frequently delay academic tasks tend to have less preparation time, lower quality of work, and greater difficulty meeting academic standards. The accumulation of delayed tasks may also increase stress, reduce learning effectiveness, and weaken students' confidence in their academic ability. In this sense, procrastination does not only affect task completion but also influences students' overall academic functioning.

Similarly, Fentaw et al. (2022) show that academic procrastination is a real problem among university students because it interferes with academic discipline, learning responsibility, and task completion. In university settings, students are expected to be more independent in managing their learning activities. Unlike school students, university students usually have greater freedom in organizing their study schedules, completing assignments, and preparing for examinations. However, this freedom may become a challenge when students do not have adequate self-regulation skills. Without strong internal control, academic independence may lead to task avoidance and delay.

The predictive analysis conducted by Song et al. (2024) also indicates that academic procrastination is influenced by multiple factors, including individual characteristics, learning habits, and academic environment. This supports the view that procrastination is not a single behavior caused by one factor, but a pattern that develops from the interaction of several conditions. Students may procrastinate because they lack clear goals, feel overwhelmed by tasks, have low confidence, experience negative emotions, or are distracted by non-academic activities. Therefore, interventions to reduce academic procrastination should address not only time management but also students' thoughts, emotions, motivation, and learning behavior.

In the context of university students, academic procrastination becomes more problematic because academic tasks often require long-term planning and sustained effort. Assignments, examinations, presentations, research projects, and thesis writing cannot be completed effectively through last-minute effort. When students delay these tasks, they may experience pressure, anxiety, and decreased performance. Furthermore, repeated procrastination may form a maladaptive academic habit. Svartdal & Løkke (2022) explain that procrastination can be understood as a habitual pattern that is maintained by short-term emotional relief. Students may delay tasks to avoid discomfort, but this avoidance creates long-term academic problems.

Therefore, academic procrastination among university students should be viewed as both an academic and psychological issue. It is academic because it directly affects learning outcomes, task completion, and academic achievement. It is psychological because it is closely related to motivation, self-efficacy, emotional regulation, irrational beliefs, and self-control. This understanding is important because strategies to reduce procrastination should not only instruct students to manage their time better, but also help them develop self-regulation, challenge maladaptive thoughts, and build more adaptive learning habits.

Psychological Factors Contributing to Academic Procrastination

Academic procrastination is influenced by various psychological factors. Among the most frequently discussed factors are low self-efficacy, perfectionism, fear of failure, irrational beliefs, anxiety, poor metacognitive awareness, and emotional avoidance. These factors make procrastination more than a behavioral delay. They show that procrastination is closely connected to the way students think about themselves, evaluate academic tasks, and respond emotionally to academic demands.

Self-efficacy is one of the important psychological factors related to academic procrastination. Students with low self-efficacy tend to doubt their ability to complete academic tasks successfully. When students believe that they are not capable of doing a task, they may avoid starting it, delay working on it, or wait until they feel more prepared. Ashraf et al. (2023) show that self-efficacy plays an important role in academic procrastination because students' beliefs about their own ability influence their willingness to begin and complete academic work. Low self-efficacy may produce avoidance behavior, while higher self-efficacy may encourage students to face academic challenges more confidently.

Perfectionism is another factor that can contribute to academic procrastination. Although perfectionism is sometimes associated with high academic standards, maladaptive perfectionism may lead students to delay tasks because they fear that their work will not meet ideal expectations. Huang et al. (2023) explain that perfectionism can be linked to procrastination when students set unrealistic standards and become overly concerned about mistakes. In this condition, students may postpone starting a task because they feel that they are not ready to produce perfect work. As a result, the desire to do something perfectly may ironically prevent students from doing the task at all.

Fear of failure also plays a central role in academic procrastination. Students who fear failure may perceive academic tasks as threats to their self-worth. Instead of seeing assignments or examinations as learning opportunities, they may interpret them as situations that expose their weaknesses. Balkis et al. (2024) emphasize that fear of failure and irrational academic beliefs can strengthen procrastination because students avoid tasks that create anxiety or threaten their academic self-image. This avoidance may provide temporary emotional relief, but it increases academic pressure in the long term.

Irrational beliefs are closely related to fear of failure and perfectionism. Students may think, "*I must complete this task perfectly,*" "*If I fail, it means I am not capable,*" or "*I cannot start unless I feel fully ready.*" Such beliefs make academic tasks appear more difficult and emotionally threatening. From a cognitive-behavioral perspective, these maladaptive thoughts influence emotions and behavior. When students interpret tasks negatively, they may experience anxiety, stress, or helplessness, which then leads to avoidance and procrastination. Therefore, academic procrastination can be understood as a result of distorted thinking patterns that maintain task delay.

Metacognitive awareness also contributes to procrastination. Metacognition refers to students' ability to understand, monitor, and regulate their own thinking and learning processes. Zhou et al. (2022) indicate that metacognition is related to academic procrastination because students who lack awareness of their learning strategies may have difficulty planning tasks, monitoring progress, and evaluating their performance. Without adequate metacognitive skills, students may underestimate the time needed to complete tasks, fail to recognize ineffective study habits, and delay academic responsibilities until deadlines become urgent.

Emotional avoidance is another important explanation for academic procrastination. Students often procrastinate not because they do not understand the

importance of academic tasks, but because they want to avoid negative emotions associated with those tasks. Difficult assignments may create anxiety, boredom, frustration, or fear. By delaying the task, students temporarily reduce emotional discomfort. However, this relief is short-lived and may later produce greater stress, guilt, and pressure. Svartdal & Løkke (2022) explain that procrastination can become a maladaptive habit because avoidance is reinforced by immediate emotional relief. This pattern makes procrastination difficult to stop without intervention.

Digital distraction may further strengthen psychological factors that contribute to procrastination. In contemporary university life, students are surrounded by smartphones, social media, online entertainment, and other digital activities. These distractions provide immediate pleasure and may become an easy escape from difficult academic tasks. Karakaya Özyer & Altinsoy (2023) found that problematic internet use, self-regulated online learning, and academic self-efficacy are associated with academic procrastination. Similarly, Zhao et al. (2025) highlight the role of self-control and academic self-efficacy in the relationship between smartphone addiction and procrastination. This suggests that procrastination is often maintained by both internal psychological factors and external digital temptations.

Based on these findings, psychological factors contributing to academic procrastination can be grouped into three main categories. First, cognitive factors include irrational beliefs, perfectionism, fear of failure, and low self-efficacy. Second, emotional factors include anxiety, stress, frustration, and avoidance of discomfort. Third, behavioral-regulatory factors include poor self-control, weak time management, low metacognitive awareness, and difficulty resisting distractions. These factors interact with one another and create a cycle of procrastination. Students who doubt their ability may feel anxious, avoid the task, experience temporary relief, and then face greater academic pressure near the deadline.

Therefore, reducing academic procrastination requires an approach that addresses cognitive, emotional, and behavioral aspects simultaneously. Cognitive Behavioral Therapy is relevant because it helps students identify and reconstruct maladaptive thoughts, while self-regulation strategies help them plan, monitor, and control academic behavior. In this way, CBT-based self-regulation strategies can be used to break the procrastination cycle by changing irrational beliefs, reducing avoidance, strengthening self-efficacy, and developing more consistent academic habits.

Self-Regulation as a Protective Factor against Academic Procrastination

Self-regulation is an important psychological capacity that enables students to manage their thoughts, emotions, motivation, and behavior in order to achieve academic goals. In the context of higher education, self-regulation is especially necessary because university students are expected to learn independently, manage complex assignments, prepare for examinations, and complete academic responsibilities with limited external supervision. Students with strong self-regulation are more capable of setting goals, planning learning activities, monitoring progress, controlling distractions, and evaluating

learning outcomes. Conversely, students with weak self-regulation often experience difficulty initiating tasks, maintaining focus, and completing assignments on time.

Elizondo et al. (2024) found that self-regulation is closely related to procrastination among college students. Their findings indicate that students who have better self-regulation tend to show lower levels of procrastination because they are more capable of controlling their academic behavior. This suggests that procrastination is not only a matter of delaying tasks, but also a sign of difficulty in regulating goal-directed behavior. When students fail to regulate themselves, they may know what should be done but still be unable to translate academic intentions into consistent action.

From the perspective of self-regulation theory, procrastination can be understood as a failure in self-control. Zhao et al. (2021) explain that procrastination reflects a gap between intention and action. Students may intend to complete assignments, study regularly, or prepare for examinations early, but they fail to act according to those intentions. This failure often occurs because immediate emotional relief or short-term pleasure becomes more attractive than long-term academic goals. As a result, students choose temporary comfort, such as resting, browsing social media, or doing easier activities, while postponing more demanding academic tasks.

Self-regulation is also closely related to self-regulated learning. Self-regulated learning refers to students' active involvement in planning, monitoring, and evaluating their own learning processes. Ma et al. (2022) show that online self-regulated learning is related to academic procrastination, particularly in digital learning environments. Students who are able to regulate their online learning activities are more likely to manage time effectively, avoid distractions, and complete academic tasks. In contrast, students who lack online self-regulation may easily shift from academic activities to non-academic online activities, which increases procrastination.

The importance of self-regulated learning is also supported by Tao et al. (2025), who found that self-regulated learning strategies can reduce academic procrastination and improve academic success. These strategies include goal setting, strategic planning, monitoring, self-evaluation, and reflection. When students use these strategies consistently, they are more capable of organizing their academic tasks and maintaining motivation. This indicates that self-regulation is not only a personality trait but also a set of skills that can be trained and developed through educational and counseling interventions.

Theobald (2021) also emphasizes that self-regulated learning training programs can enhance university students' academic performance and motivation. This finding is important because it shows that students who struggle with procrastination can be helped through structured training. Self-regulation can be strengthened by teaching students how to plan their learning, divide large tasks into smaller steps, set realistic deadlines, monitor their behavior, and evaluate the effectiveness of their strategies. Therefore, self-regulation has both preventive and corrective functions in reducing academic procrastination.

In addition, Luo & Zhou (2024) highlight the effectiveness of self-regulated learning strategies in higher education, particularly in blended learning contexts. This is

relevant to contemporary university students because many academic activities now take place in hybrid or online environments. In such environments, students must manage both academic demands and digital distractions. Without adequate self-regulation, online learning can increase procrastination because students have greater freedom but also greater exposure to distractions. Thus, strengthening self-regulation becomes increasingly important in modern academic contexts.

Self-regulation can reduce procrastination through several mechanisms. First, it helps students clarify academic goals. Clear goals make tasks more meaningful and reduce uncertainty about what needs to be done. Second, self-regulation supports planning and time management. Students who plan their tasks are less likely to depend on last-minute work. Third, self-regulation strengthens monitoring. By monitoring progress, students can identify delays early and adjust their behavior. Fourth, self-regulation improves self-evaluation. Students can reflect on their learning habits and identify strategies that need improvement. Fifth, self-regulation helps students control emotional and digital distractions that may interfere with task completion.

Based on these explanations, self-regulation can be considered a protective factor against academic procrastination. It helps students transform academic intentions into concrete actions. However, self-regulation does not develop automatically in all students. Some students need guidance, training, and counseling support to strengthen their ability to regulate themselves. Therefore, self-regulation strategies need to be integrated with counseling approaches that can address the cognitive and emotional roots of procrastination. Cognitive Behavioral Therapy provides a relevant framework because it helps students identify irrational beliefs, manage negative emotions, and develop adaptive behaviors that support academic self-regulation.

Cognitive Behavioral Therapy as a Counseling Approach for Academic Procrastination

Cognitive Behavioral Therapy is a counseling approach that focuses on the relationship between thoughts, emotions, and behaviors. CBT assumes that maladaptive thoughts can influence emotional responses and behavioral patterns. In the context of academic procrastination, students may delay tasks because they hold negative or irrational beliefs about academic demands. For example, they may think that a task is too difficult, that failure would be unacceptable, that their work must be perfect, or that they can only work effectively under pressure. These thoughts may create anxiety, fear, and avoidance, which eventually lead to procrastination.

CBT is relevant for academic procrastination because procrastination is often maintained by cognitive distortions and avoidance behavior. Students who feel anxious about academic tasks may avoid them temporarily to reduce discomfort. However, this avoidance reinforces procrastination because students learn that delaying tasks can provide short-term emotional relief. Over time, this pattern becomes a habit. CBT helps students break this cycle by identifying maladaptive thoughts, challenging irrational beliefs, and replacing avoidance with more adaptive academic behavior.

Ugwuanyi et al. (2020) found that Cognitive Behavioral Therapy is effective in reducing academic procrastination behavior. Their study shows that CBT can help students recognize the thoughts and beliefs that contribute to procrastination and develop more adaptive responses. This finding supports the view that academic procrastination is not only a behavioral problem but also a cognitive and emotional problem. Therefore, interventions should not only focus on task scheduling, but also on changing the way students interpret academic tasks and their own abilities.

More recently, de Haas et al. (2025) demonstrated that group CBT can reduce procrastination among college students. This finding is important because it shows that CBT can be implemented not only in individual counseling but also in group-based interventions. Group CBT may be useful in university counseling settings because it allows students to share experiences, recognize common procrastination patterns, and learn coping strategies together. In addition, group settings may reduce students' feelings of isolation and increase motivation through peer support.

Tolan (2023) also explains that psychoeducation based on Cognitive Behavioral Theory can help university students develop coping skills for dealing with academic procrastination. Psychoeducation is an important component of CBT because it helps students understand the mechanism of procrastination. When students understand that procrastination is influenced by thoughts, emotions, and behaviors, they become more aware of their own patterns. This awareness is the first step toward change. Through psychoeducation, students can learn that procrastination is not simply a fixed personal weakness, but a modifiable behavior.

CBT also provides practical techniques that can directly address academic procrastination. Cognitive restructuring helps students identify irrational beliefs and replace them with more realistic thoughts. For example, the thought "I must complete this assignment perfectly" can be changed into "I can start with a draft and improve it gradually." Behavioral activation encourages students to begin tasks even when they do not feel motivated. Time management techniques help students organize academic responsibilities more realistically. Self-monitoring helps students observe their procrastination patterns, while self-reinforcement helps maintain progress by giving positive consequences for task completion.

Khurshid et al. (2025) show that CBT is also relevant for academic burnout, procrastination, self-handicapping, and test anxiety. This suggests that CBT can address various academic difficulties that are psychologically interconnected. Students who procrastinate may also experience anxiety, burnout, and low academic confidence. Therefore, CBT is useful because it does not only target procrastination as a single behavior but also addresses related psychological problems that may maintain procrastination.

Suminarni et al. (2025) also highlight the importance of CBT counseling approaches in overcoming academic procrastination. Their review suggests that CBT-based counseling can help students reconstruct maladaptive thinking patterns and develop more effective academic behaviors. This is consistent with the main focus of this article,

which emphasizes the integration of CBT and self-regulation strategies. CBT provides the cognitive-behavioral framework, while self-regulation provides practical skills for managing academic tasks.

In academic counseling, CBT can be applied through several stages. First, students are helped to identify their procrastination patterns, including the tasks they avoid, the situations that trigger delay, and the emotions they experience. Second, students identify irrational thoughts related to academic tasks. Third, they are guided to challenge these thoughts and develop more realistic alternatives. Fourth, they are trained to use behavioral strategies such as task breakdown, scheduling, self-monitoring, and gradual task completion. Fifth, students evaluate their progress and strengthen new habits.

Therefore, CBT is an appropriate counseling approach for reducing academic procrastination because it addresses the cognitive, emotional, and behavioral dimensions of the problem. CBT helps students understand why they procrastinate, challenge the beliefs that maintain procrastination, and develop concrete strategies to complete academic tasks. When CBT is combined with self-regulation strategies, it becomes more practical and systematic because students are not only encouraged to think differently but also trained to act differently.

CBT-Based Self-Regulation Strategies to Reduce Academic Procrastination

CBT-based self-regulation strategies refer to the integration of cognitive-behavioral techniques with self-regulation skills to help students reduce academic procrastination. This approach is based on the assumption that procrastination occurs because students experience difficulties in regulating their thoughts, emotions, motivation, and behavior. Therefore, intervention should not only teach students how to manage time, but also help them identify maladaptive thoughts, control avoidance tendencies, and build consistent academic habits.

Novalia et al. (2023) propose that cognitive behavior counseling combined with self-regulated learning techniques can help students reduce academic procrastination. This integration is important because CBT and self-regulation complement each other. CBT focuses on changing maladaptive thoughts and behaviors, while self-regulation focuses on planning, monitoring, controlling, and evaluating academic actions. When combined, these two approaches provide a comprehensive strategy for helping students move from avoidance to action.

The first strategy is self-monitoring. Self-monitoring helps students observe and record their procrastination patterns. Students can identify when they procrastinate, what tasks they avoid, what thoughts appear before delaying, what emotions they experience, and what activities replace the academic task. Through self-monitoring, students become more aware of the connection between thoughts, emotions, and behavior. This awareness is essential because students often procrastinate automatically without fully recognizing the triggers. In CBT, self-monitoring functions as a starting point for identifying maladaptive patterns that need to be changed.

The second strategy is cognitive restructuring. Cognitive restructuring helps students identify irrational beliefs and replace them with more realistic and constructive

thoughts. Buana & Zulwidyaningtyas (2025) emphasize that cognitive restructuring techniques are useful in reducing academic procrastination because they help students challenge distorted thinking patterns. For example, students who believe that they must produce perfect work before starting can be guided to replace this belief with a more adaptive thought, such as *“starting with a simple draft is better than not starting at all.”* This change in thinking can reduce anxiety and make task initiation easier.

The third strategy is goal setting. Students who procrastinate often have unclear or unrealistic goals. They may know that they need to complete an assignment, but they do not have a concrete plan for how to complete it. Goal setting helps students formulate specific, measurable, achievable, relevant, and time-bound academic goals. Instead of saying, *“I will work on my assignment later,”* students are encouraged to set a clearer goal, such as *“I will write the introduction section for 30 minutes tonight.”* Clear goals reduce ambiguity and increase the possibility of action.

The fourth strategy is task breakdown or graded task assignment. Large academic tasks often feel overwhelming, which may trigger avoidance. By breaking tasks into smaller and manageable steps, students can reduce psychological pressure and increase task initiation. For example, writing a paper can be divided into selecting a topic, searching references, making an outline, writing the introduction, developing the discussion, and revising the final draft. This strategy is consistent with CBT principles because it reduces avoidance by making tasks less threatening and more manageable.

The fifth strategy is time management. Academic procrastination is often related to poor time management, unrealistic planning, and failure to estimate the time required to complete tasks. Asri & Kadafi (2020) show that time management techniques in group counseling can help reduce procrastination. Time management strategies may include making daily schedules, setting priority lists, creating personal deadlines, using study blocks, and limiting distractions during academic work. In CBT-based self-regulation, time management is not only a scheduling technique but also a behavioral tool for increasing commitment and consistency.

The sixth strategy is self-instruction. Self-instruction refers to the use of internal verbal guidance to direct behavior. Students can be trained to use constructive self-statements, such as *“I can start with a small step,”* *“I do not need to wait for perfect motivation,”* or *“I will focus for the next 20 minutes.”* Asri & Kadafi (2020) indicate that self-instruction techniques can support students in managing procrastination. This strategy helps students regulate their internal dialogue and replace discouraging thoughts with task-oriented instructions.

The seventh strategy is self-reinforcement. Self-reinforcement involves giving positive rewards to oneself after completing specific academic goals. This strategy is useful because procrastination is often maintained by immediate rewards from non-academic activities, such as entertainment or social media. Self-reinforcement helps students create positive consequences for academic behavior. For example, students may allow themselves to watch a short video, take a break, or do a pleasant activity after

completing a study target. In this way, academic task completion becomes more rewarding and sustainable.

The eighth strategy is behavioral activation. Behavioral activation encourages students to begin academic tasks even when they do not feel motivated. Many students delay tasks because they wait until they feel ready or motivated. However, from a behavioral perspective, motivation often appears after action begins, not before. Behavioral activation helps students start with small actions, such as opening a document, reading one paragraph, or writing one sentence. These small actions can reduce avoidance and create momentum for further work.

The ninth strategy is self-management. Agussalim et al. (2025) show that self-management techniques in counseling can help students reduce academic procrastination. Self-management includes planning behavior, controlling environmental triggers, monitoring progress, and evaluating outcomes. In the context of CBT-based self-regulation, self-management helps students take responsibility for their academic behavior. Counselors can guide students to identify distractions, arrange study environments, set task priorities, and review progress regularly.

The tenth strategy is implementation intention. Zhou et al. (2026) emphasize the importance of mental contrasting and implementation intentions in reducing procrastination. Implementation intention refers to a specific plan that connects a situation with an intended behavior, such as *“If it is 7 p.m., then I will work on my assignment for 30 minutes.”* This strategy helps students reduce the gap between intention and action. By creating clear behavioral cues, students are more likely to act automatically when the planned situation occurs.

These strategies can be integrated into a structured counseling model. The first stage is assessment, in which students identify their procrastination patterns through self-monitoring. The second stage is cognitive intervention, in which students identify irrational beliefs and practice cognitive restructuring. The third stage is behavioral planning, in which students set goals, break tasks into smaller steps, and arrange time schedules. The fourth stage is action implementation, in which students use self-instruction, behavioral activation, and implementation intentions. The fifth stage is evaluation and maintenance, in which students review progress, apply self-reinforcement, and adjust strategies when needed.

The integration of CBT and self-regulation provides a comprehensive framework for reducing academic procrastination. CBT helps students modify the cognitive and emotional factors that maintain procrastination, while self-regulation strategies help students develop practical skills for academic task completion. This integration is important because students need both cognitive change and behavioral structure. Without cognitive change, students may continue to believe that tasks are threatening or impossible. Without behavioral structure, students may understand their problem but still fail to act consistently.

Therefore, CBT-based self-regulation strategies can be recommended as an effective and applicable counseling approach for university students who experience

academic procrastination. These strategies help students identify maladaptive thoughts, reduce emotional avoidance, control distractions, improve time management, and develop consistent academic habits. In addition, this approach supports students' academic independence because it trains them to regulate themselves rather than depend entirely on external pressure or deadlines. Thus, CBT-based self-regulation strategies are relevant not only for reducing procrastination but also for strengthening students' long-term learning autonomy and psychological resilience.

CONCLUSION

Academic procrastination among university students is a complex problem that cannot be understood merely as poor time management or laziness. It is closely related to cognitive, emotional, motivational, and behavioral factors, including low self-efficacy, fear of failure, maladaptive perfectionism, irrational academic beliefs, weak metacognitive awareness, emotional avoidance, and poor self-regulation. Students who experience academic procrastination often understand the importance of completing academic tasks, but they have difficulty initiating, maintaining, and completing academic work consistently. Therefore, academic procrastination needs to be addressed through an approach that does not only focus on task scheduling, but also on the cognitive and behavioral processes that maintain avoidance.

The literature synthesis shows that self-regulation is an important protective factor against academic procrastination. Self-regulation helps students plan academic activities, monitor progress, control distractions, manage emotions, evaluate learning strategies, and maintain goal-directed behavior. However, self-regulation skills need to be strengthened through structured interventions. Cognitive Behavioral Therapy provides a relevant counseling framework because it helps students identify maladaptive thoughts, reconstruct irrational beliefs, reduce emotional avoidance, and develop more adaptive academic behaviors. The integration of CBT and self-regulation strategies offers a comprehensive approach to reducing academic procrastination among university students.

CBT-based self-regulation strategies can be applied through several techniques, including self-monitoring, cognitive restructuring, goal setting, task breakdown, time management, self-instruction, self-reinforcement, behavioral activation, self-management, and implementation intention. These strategies help students recognize procrastination patterns, challenge negative thoughts, reduce avoidance behavior, and build more consistent academic habits. Therefore, self-regulation strategies based on Cognitive Behavioral Therapy can be recommended as an effective and practical counseling approach for reducing academic procrastination and strengthening students' learning autonomy.

This study has several limitations. Since it was conducted as library research, the findings are based on the analysis and synthesis of previous studies rather than direct empirical data from university students. Therefore, the effectiveness of the proposed CBT-based self-regulation strategies still needs to be tested through field research,

experimental studies, or counseling practice in higher education settings. Future research is recommended to examine the implementation of these strategies using quantitative, qualitative, mixed-method, or experimental designs. Future studies may also compare individual counseling, group counseling, and digital-based CBT interventions to determine which format is most effective in reducing academic procrastination among university students.

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