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Modification Of Coping Strategies From Maladaptive To Adaptive Through Self-Monitoring And Cognitive Restructuring Among University Students (Single-Subject Design)

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Abstract

This study aims to evaluate the effectiveness of self-monitoring and cognitive restructuring techniques in transforming maladaptive coping strategies into adaptive ones among college students. The primary focus of the study is excessive consumption of sugary drinks as a response to academic, organizational, and interpersonal stressors. The method used was a Single Subject Experimental Design (SSED) with an A–B design over 14 days involving a 21-year-old female student in Malang. Baseline data indicated that the subject was experiencing severe stress, with sugary drink consumption reaching 7–8 glasses per day, resulting in deteriorating physical health that required hospitalization. The intervention involved self-monitoring and cognitive restructuring of negative thoughts to break the pattern of impulsive behavior. The results showed a significant, gradual reduction in the frequency of sugary drink consumption to 2 glasses per day by the end of the intervention. Maladaptive coping scores dropped drastically from 6.8 to 3.4, while adaptive coping scores increased from 1.8 to 5.2. This study concludes that the integration of CBT techniques effectively enhances self-awareness and fosters healthier defense mechanisms through the principle of shaping. These changes were shown to improve emotional regulation while aiding the subject's physical recovery.

Keywords: Cognitive Restructuring, Adaptive Coping, College Students, Self-Monitoring, Single-Subject Design.

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INTRODUCTION

College is a developmental stage filled with academic, social, and personal demands, making students prone to psychological stress. Several changes that occur during the transition to early adulthood require individuals to develop emotional regulation skills and effective coping strategies in order to adapt well to various stressors in life. One event that often causes emotional stress among students is the end of a romantic relationship (Fauzi et al., 2024). The end of a relationship can lead to feelings of loss, rejection, loneliness, and a decline in self-esteem, which affect a person's psychological functioning (Rhoades et al., 2011). This situation often drives students to seek quick methods to cope with the negative emotions they are experiencing.

When facing emotional distress, people generally employ certain coping strategies. However, not all coping strategies are adaptive. Some students actually exhibit maladaptive coping behaviors that provide only temporary relief but can worsen their psychological state over the long term. One common type of maladaptive coping is emotional eating, which involves consuming high-sugar foods or beverages as a reaction to negative emotions, rather than due to physical hunger. Emotional eating is known to be associated with stress, anxiety, and difficulty regulating emotions, and can develop into a dysfunctional behavioral pattern if repeated (Yustika Wijayanti & Nur Fathiyah, 2023).

Maladaptive coping behaviors arise from the interplay of thoughts, emotions, and behaviors that influence one another. People going through a breakup often experience negative automatic thoughts, such as feeling worthless, rejected, or having failed to maintain the relationship. These thoughts then increase emotional stress and drive individuals to take certain actions to achieve temporary comfort, including excessive consumption of sugary drinks. This situation indicates that people tend to adopt consumptive behaviors as a way to emotionally escape when facing psychological stress. Research shows that poor emotional regulation is associated with the emergence of maladaptive coping behaviors, including a tendency to use food or drinks as a reaction to negative emotions (Fitri & Kushendar, 2019). Although such actions may provide temporary relief, they do not address the root of the problem and risk perpetuating a cycle of negative emotions.

One of the most commonly used methods for addressing unhealthy thought patterns and behaviors is Cognitive Behavioral Therapy (CBT). This approach emphasizes that behavioral change can be achieved by altering maladaptive thought patterns. Research shows that CBT can help individuals reduce emotional distress and improve emotional regulation skills through a combination of cognitive and behavioral techniques (Cuijpers et al., 2019). One important

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technique is self-monitoring, which is the process of consciously observing and recording behavior to increase an individual's awareness of their own behavioral patterns. Self-monitoring has been shown to induce a reactivity effect, which is a behavioral change that occurs as individuals become aware of actions previously performed automatically (Tomlinson et al., 2018).

In addition to self-monitoring, cognitive restructuring techniques are used to help individuals recognize and transform negative automatic thoughts into more realistic and adaptive ones. This method enables individuals to recognize the connection between negative thoughts and the resulting coping behaviors, allowing them to develop better responses to emotional distress. Research by Fitri & Kushendar (2019) indicates that cognitive restructuring can effectively support students in reducing various psychological issues related to negative thought patterns and difficulties with adjustment. By combining self-monitoring and cognitive restructuring techniques, individuals are expected not only to reduce maladaptive coping behaviors such as excessive consumption of sugary drinks but also to gradually begin developing more adaptive coping strategies.

Although there has been extensive research on Cognitive Behavioral Therapy (CBT) approaches, studies specifically examining the process of shifting coping strategies from maladaptive to adaptive through a combination of self-monitoring and cognitive restructuring techniques among college students experiencing emotional distress following a breakup remain limited, particularly in the context of single-subject research. Previous research has largely focused on the use of cognitive restructuring to improve academic resilience, self-adaptation, and reduce academic burnout among college students (Fitri & Kushendar, 2019). Therefore, this study aims to describe the process of changing coping strategies from maladaptive to adaptive through the application of self-monitoring and cognitive restructuring techniques in students using a Single Subject Experimental Design (SSED).

RESEARCH METHOD

This study employed an experimental approach using the A–B model of the Single Subject Experimental Design (SSED). This design was used to observe behavioral changes in a single subject by comparing the baseline phase and the intervention phase, in which the subject served as their own control. During the baseline phase, the subject is observed without any intervention, whereas during the intervention phase, the subject receives self-monitoring and cognitive restructuring techniques. The use of a single-subject design is considered capable of detailing behavioral changes in an individual under specific conditions (Dhana et al., 2018).

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The participant in this study was a 21-year-old female college student enrolled at a public university in Malang. The participant was selected using purposive sampling based on the following criteria: (1) having experienced a breakup within the last 30 days; (2) exhibiting excessive consumption of sugary drinks as a reaction to emotional stress; (3) not currently undergoing any other psychological intervention; and (4) willing to participate in all stages of the study.

The dependent variable in this study is coping strategies, measured using the Daily Behavior Rating Scale—a self-report assessment of behavior with a score range of 0–10—which was adapted by the researchers based on a synthesis of theories regarding adaptive and maladaptive coping strategies (Compas et al., 2017) based on operational indicators of adaptive and maladaptive coping. Maladaptive coping scores are determined by the intensity and frequency of sugary drink consumption as a reaction to negative emotions (Pradana Firmansyah & Kurniawan, 2022), while adaptive coping scores are determined by the emergence of more positive behaviors, such as the ability to recognize negative thoughts, engage in cognitive restructuring, and use healthier distraction activities (Karneli et al., 2019). Scoring is conducted daily based on information recorded in the self-monitoring sheet (Layalia Alyan et al., 2026).

The instrument used in this study was the Daily Self-Monitoring Sheet, designed based on the thought-recording format used in Cognitive Behavioral Therapy (CBT) (Karneli et al., 2019). This sheet contains notes regarding triggering situations, negative automatic thoughts, emotional reactions, actions taken, consequences of those actions, and cognitive restructuring efforts during the intervention phase. It was completed daily over the 14-day study period to support the process of self-observation regarding changes in coping behavior (Layalia Alyan et al., 2026).

The study was conducted in two phases: a five-day baseline phase and a nine-day intervention phase (Dhana et al., 2018). During the baseline phase, participants were simply asked to record their daily activities without any specific intervention. Afterward, the researchers provided psychoeducation on the interconnection between thoughts, emotions, and behavior, and trained participants in self-monitoring and cognitive- -restructuring techniques (Karneli et al., 2019). During the intervention phase, participants applied both techniques independently under periodic supervision by the researchers (Layalia Alyan et al., 2026).

Data analysis was conducted using visual and descriptive methods commonly applied in SSED research (Layalia Alyan et al., 2026). Visual analysis was performed by comparing changes in the level, pattern, and consistency of behavior between the baseline phase and the intervention phase. Descriptive analysis was performed by calculating the mean scores for maladaptive coping, adaptive coping, and the frequency of sugary drink consumption in each phase of the study to

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observe the direction of behavioral change after the intervention was administered.

RESUKT AND DISCUSSION

This study aims to describe the process of transitioning from maladaptive to adaptive *coping* strategies in a single female college student (21 years old) experiencing psychological stress due to high academic and organizational demands. Behavioral changes were recorded over 14 days using a Single-Subject Experimental Design (SSED) with an A–B pattern, which included a baseline phase and an intervention phase. Data were obtained from daily self-monitoring sheets that recorded the frequency of sugary drink consumption, maladaptive coping scores, and adaptive coping scores. Daily behavioral data collection was conducted over 14 days, divided into a 5-day *baseline* phase (A) and a 9-day intervention phase (B).

In this initial phase, the subject's psychological state was characterized by a very high level of emotional *distress*. According to the *logbook*, the subject's stressors stemmed from an accumulation of demanding academic *deadlines*, failures in daily time management, the burden of responsibilities within a student organization, and internal family pressures as exam week approached. As an automatic emotional response (*emotional coping*), the subject turns to extreme consumption of sugary drinks to cope with the mental burden. The subject consumes an average of 7 to 8 different types of high-sugar beverages daily, including cincau, milk, lime honey, Sprite, nata de coco, Yakult, iced matcha tea, poci tea, and daily coffee.

This pattern of emotional eating is exacerbated by severe eating disorder; the subject often eats only once a day (consisting of packaged bread or snacks) or does not eat at all when stress peaks. As a result of this maladaptive *coping* behavior and neglect of physical health, the subject's health deteriorates drastically until they experience a "crash." Reaching a peak over the weekend (Saturday and Sunday), the subject had to be rushed to the hospital for intensive care. This situation empirically demonstrates that turning to high-sugar consumption (*emotional eating*) does not reduce stressors but instead triggers damage to the subject's physiological functions.

After the subjects received psychoeducation and self-training sessions on day 5, they began independently implementing *self-monitoring* and *cognitive restructuring* techniques starting on day 6. At the start of the intervention phase (days 8–10), cognitive reactivity began to take effect; the frequency of sugary drink consumption decreased to 4–5 glasses per day as the subject's physical condition improved and their awareness increased when the urge to buy sugar arose amid a heavy workload. Entering the final phase of the intervention (days 12–14), the

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subject's maladaptive behavior was successfully and consistently reduced to an average of 2 glasses per day. The subject began independently substituting their behavior by replacing packaged drinks with mineral water.

Table1 . Table Comparing Average Coping Scores in the Baseline and Intervention Phases

Phase	Consumption of sugary drinks	Maladaptive coping scores	Adaptive coping score
Baseline (days 1–5)	7 glasses/day	6.8	1.8
Intervention (days 6–14)	2 glasses/day	3.4	5.2

The significant decrease in the frequency of sugary drink consumption among the subjects demonstrates that the implementation *of self-monitoring* techniques to track daily behaviors is highly effective. Drawing on the principles of behavioral modification from Miltenberger's " , the conscious observation and recording of one's own actions triggers self-regulatory functions. When subjects wrote down every glass of sugary drink (such as boba, coffee, and soda) they consumed in *a logbook* while feeling stressed by academic tasks, this elicited a cognitive reactivity effect. Visual awareness of the high daily accumulation of sugar motivates the subject to intentionally stop this dysfunctional automated behavior. This measurable behavioral change through daily logging aligns with the single-object visual evaluation method proposed by (Epstein & Dallery, 2022) .

Cognitive restructuring plays a crucial role in breaking the chain of emotional dependence between psychological stress and the impulsive response of seeking comfort through food (*emotional eating*). Until now, academic burnout and organizational stress have triggered negative *automatic thoughts*—specifically, the belief that the body needs an immediate sugar intake to be able to endure and complete tasks. Through cognitive restructuring, the subject is trained to challenge these thoughts and transform them into more rational cognitive schemas, such as recognizing that excessive sugar consumption actually triggers new health issues. This disruption of cognitive distortions aligns with the findings of " , which state that cognitive-behavioral therapy (CBT) is highly effective in modifying dysfunctional eating/drinking behaviors driven by emotional stress (*binge eating* or *overeating*). The close link between poor emotional

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regulation and the urge to consume sugar daily is also confirmed by SULTSON, (2022) through the concept of *the emotional eating scale*.

The process of shifting the subject's defense response from maladaptive (6.8) to adaptive (5.2) proceeded gradually using the principle *of shaping*. The subject was not forced to stop completely all at once, but rather reduced their intake step by step while improving their daily diet from what was originally just packaged bread to regular, substantial meals. The success of establishing this new behavior prompted the subject to develop more flexible emotional regulation in coping with academic stress. The subject's ability to switch to healthier coping activities, such as getting adequate rest or practicing cognitive relaxation when facing family pressures and exams, reinforces the argument in " regarding the importance of effective adaptive *coping* strategies in maintaining students' mental health.

Although the intervention was deemed successful, the results of this behavioral modification have not yet been fully optimized. On certain days when organizational stress reaches its peak, the impulsive urge to revert to old *coping* patterns still occasionally surfaces. This is to be expected, given that the duration of this cognitive-behavioral intervention was relatively short (9 days). This phenomenon of fluctuation aligns with the perspective of Clark & Beck's (2010), which emphasizes that cognitive restructuring and chronic behavioral modification require consistent internalization and a longer duration for these adaptive schemas to crystallize into a new, enduring habit within the individual. The main limitation of this single-case experimental study lies in the use of *self-report* instruments, which creates a risk of subjectivity bias during the self-recording process.

CONCLUSION

This study concludes that a combination of Cognitive Behavioral Therapy (CBT)-based interventions using self-monitoring and cognitive restructuring techniques is effective in reducing the frequency of maladaptive coping behaviors, specifically excessive consumption of sugary drinks, among college students. The use of self-monitoring worksheets significantly increased participants' cognitive awareness of academic and organizational stressors. Meanwhile, the cognitive restructuring technique proved capable of breaking the chain of impulsive emotional escape behaviors. Through the shaping approach, participants successfully shifted their defense mechanisms toward more adaptive responses, which contributed directly to emotional stability and physical recovery following hospitalization.

For the research subjects, it is recommended that they continue to independently

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complete their thought records and monitoring sheets to maintain the healthy behaviors that have been established (maintenance phase). For future researchers, it is recommended to extend the duration of the experiment using a reversal design such as A–B–A to verify the stability of the subjects' adaptive behaviors after the intervention has been formally discontinued. Additionally, it is recommended to integrate supportive clinical instruments, such as those suggested by Katterman et al(2014) , for example, through periodic measurement of body mass index (BMI) or objective physiological parameters (daily blood sugar levels), to accurately validate the effectiveness of behavioral changes on students' physical health.

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