
Effectiveness of Self-talk Techniques in Reducing Academic Stress among Undergraduate Students

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Abstract

High academic demands in higher education often constitute a primary source of stress that negatively affects students' psychological well-being. Despite the increasing prevalence of academic stress, many students lack effective cognitive strategies to independently manage such pressure. This study aimed to evaluate the effectiveness of self-talk techniques in reducing academic stress among university students. This study employed a quantitative approach using a pre-experimental one-group pretest–posttest design. The participants were students experiencing moderate to high levels of academic stress who underwent a self-talk intervention across several sessions. Academic stress levels were measured using the Depression Anxiety Stress Scale (DASS) and analyzed using the Wilcoxon test. The results indicated that the self-talk technique significantly reduced students' academic stress. This reduction was reflected in a shift toward milder stress categories after the intervention. These findings support the hypothesis that self-talk is an effective mechanism for reducing psychological pressure. Consequently, this technique may serve as a viable strategy for improving students' mental health issues. The findings further suggest that higher education institutions should integrate cognitive-based interventions into student counseling programs to foster mental resilience in the face of increasing academic pressures.

Keywords: *academic stress, self-talk, undergraduate student*

Introduction

Academic stress is a crucial challenge in higher education resulting from the accumulation of academic pressures that exceed students' adaptive capacities (Borah et al., 2022). This phenomenon is no longer merely an ordinary psychological issue but has become a major determinant of academic success in higher education. University students are required to complete numerous complex academic assignments that demand a deep understanding, combined with the challenge of balancing academic responsibilities and personal life. This condition often triggers an imbalance between academic demands and personal well-being.

Academic stress may lead to decreased learning motivation, mental health problems such as anxiety and depression, and an increased risk of academic dropout. The long-term effects of academic stress may interfere with students' learning capacities and overall academic performances (Pascoe et al., 2020). If not properly managed, academic stress may affect students' physical condition, emotions, and behavior (Amalina et al., 2024). Academic stress may also manifest as anxiety, depression, and emotional exhaustion, which can negatively affect students' psychological well-being (Córdova Olivera et al., 2023).

The impact of academic stress not only lowers academic achievement but also

damages long-term emotional well-being. Research has shown that prolonged academic stress reduces academic performance and negatively affects students' emotional well-being (Deng et al., 2022). However, there are gender differences in coping strategy preferences, with female students tending to use emotion-based coping strategies such as self-distraction and emotional support (Graves et al., 2021). These conditions indicate the need for interventions that are not only effective but also capable of providing cognitive independence to students to regulate their emotions autonomously.

Several studies suggest that positive reappraisal and social support can improve students' academic self-efficacy, which is essential for coping with academic pressure (Freire et al., 2020). In addition, coping skills training, meditation, and mindfulness exercises have been widely used as coping strategies during the pandemic (Klonoff-Cohen, 2022). However, challenges arise when such interventions are general and fail to address the specific needs of public health students. Students in the Faculty of Public Health, despite studying health promotion in their curriculum, are often trapped in high academic pressure without adequate guidance to regulate stress independently. In other words, research examining the effectiveness of self-talk techniques among this population remains limited. Existing theories tend to focus more on general techniques without considering the unique psychological conditions faced by students; therefore, more specific research is required to address this issue.

This study aimed to examine the effectiveness of self-talk techniques in reducing academic stress among students of the Faculty of Public Health at UIN North Sumatra Medan. Self-talk is a psychological technique that refers to a positive internal dialogue that can enhance motivation and reduce negative feelings. By applying this technique, students are expected to manage academic pressure more effectively, thereby improving the balance between their personal lives and academic demands.

The correlation between self-talk and academic stress can be understood through how individuals construct and interpret their internal dialogue. Self-talk is not merely motivational words but a psychological technique that functions to transform irrational thoughts into rational ones through positive internal dialogue while renewing perspectives and feelings into more positive and optimistic views (Agestianti et al., 2024). Through self-talk techniques, students can stop negative self-talk that causes anxiety, depression, and pessimistic feelings that may interfere with their functioning and performance (Wulanndari et al., 2024). Positive self-talk techniques can serve as effective approaches to developing self-concept. When students can cope with academic tasks, their stress levels may decrease (Greco et al., 2022). Self-talk techniques may also function as cognitive tools that improve self-efficacy and reduce academic stress among university students, including test anxiety and academic procrastination (Krispenz et al., 2019). Coping strategies through positive self-talk are part of self-efficacy enhancement strategies that contribute to reducing students' academic stress (Freire et al., 2020).

Based on the explanations above, this study is important as it offers more concrete solutions to the increasing levels of academic stress. The proposed hypothesis is that self-talk techniques significantly reduce students' academic stress. Positive self-talk techniques can strengthen students' well-being in competitive academic environments (Poots & Cassidy, 2020). The application of self-talk techniques oriented toward positive thinking patterns may help students respond to academic pressure more adaptively and

effectively (Parada & Verliac, 2022). This study aims to enrich the literature on cognitive psychology and provide practical contributions to educational institutions in designing applicable mental health modules for university students.

Method

Research Design

This study employed a quantitative approach using an experimental research design to evaluate the effect of self-talk on academic stress among students at Faculty of Public Health. The research design applied was a pre-experimental design using the one group pre-test and post-test design method. In this design, measurements were conducted twice, before and after the self-talk intervention was administered to the participants.

Table 1.

Research Design

Group	Pre-test	Treatment	Post-test
Experiment	O1	X	O2

Description :

O1 : Pre-test activities

O2 : Post-test activities

X : Treatment using the self-talk technique

Participants

The research subjects initially involved 30 students from the Faculty of Public Health (FKM) at UIN North Sumatra Medan, selected using stratified random sampling technique. From this number, a screening process was conducted to determine the participants who met the research objectives of this study. Based on the initial assessment, the inclusion criteria were students with moderate-to-high academic stress level. Based on these criteria, 10 students were selected as experimental subjects who received the self-talk intervention.

Measures

Data collected was conducted using the Depression Anxiety Stress Scale (DASS) to measure students' academic stress. The scale used a Likert format with a score range of 1 – 4. The research instrument included items focusing on various aspects of academic stress, including assignment pressure, time management, and perceived academic expectations.

Research Procedure

The research procedure was conducted in three main stages: the pre-intervention stage (pre-test), intervention stage, and post-intervention stage (post-test). The intervention was administered to ten students who met the criteria as research participants and was conducted in four sessions.

1. Pre-intervention stage (pre-test). Before the intervention, the researcher provided an explanation of the study's objectives and procedures. The participants were then asked to complete the Depression Anxiety Stress Scale (DASS) questionnaire to determine their stress levels.

2. After the eligible participants were identified, the intervention stage was conducted. The intervention consisted of four sessions. The first session involved psychoeducation on academic pressure and harmful cognitive patterns.
3. In the second session, the participants were introduced to the theoretical framework of self-talk. Participants were trained to challenge irrational thoughts and construct new internal narratives that were more constructive as alternative cognitive strategies for managing their anger.
4. The third session emphasized reinforcement through role play exercises and introspective analysis.
5. The fourth session focused on the practical application of the strategies learned and the evaluation of participants' subjective experiences.
6. The final stage was the post-intervention (post-test) stage. In this stage, participants were asked to complete the DASS again as post-test data. These data were used to determine changes in academic stress levels after the intervention was administered.

Data Analysis

The data obtained from the pre and post-test results were analyzed using the Wilcoxon statistical test. The Wilcoxon test was selected because the data were obtained from the same sample before and after the intervention, and it aimed to determine whether there was a significant change in academic stress levels following the self-talk intervention.

Results

Descriptive Statistics

This study aimed to examine changes in academic stress levels before (pre-test) and after (post-test) the self-talk intervention. Based on the academic stress category data from the 10 research participants, the frequency distribution is shown in Table 2.

Table 2.

Distribution of students' academic stress levels before and after intervention

Category	<i>Pre-test</i>	<i>Post-test</i>
Lightweight	0	4
Medium	6	6
Weight	4	0
Total	10	10

As shown in Table 2, there was a noticeable change in stress levels. During the pre-test stage, most participants were categorized into moderate (six participants) and severe (four participants) stress categories. After the intervention (post-test), no participants remained in the severe category (0 participants), while four participants were categorized in the mild stress category. A more detailed description of the individual score changes is presented in Table 3.

Table 3.
Pretest and Posttest Results of Student Academic Stress Level

No	Name	Pre-test		Post-test	
		Score	Category	Score	Category
1	BS	19	Medium	13	Lightweight
2	MS	27	Weight	22	Medium
3	FS	21	Medium	22	Medium
4	KS	28	Weight	24	Medium
5	FL	20	Medium	17	Medium
6	VD	23	Medium	12	Lightweight
7	MW	19	Medium	10	Lightweight
8	IS	27	Weight	22	Medium
9	ON	28	Weight	19	Medium
10	THE	24	Medium	14	Lightweight

Assumption Test

Prior to hypothesis testing, the data were tested for normality using the Shapiro-Wilk test.

Table 4.
Hasil uji normalitas Shapiro-Wilk

Variable	Statistic	Df	Sig
Pre-test	0,718	10	0,009
Post-test	0,842	10	0,041

The normality test results showed that the pre and post-test data were not normally distributed ($p < 0,05$). Therefore, the analysis was continued using the non-parametric Wilcoxon signed-rank test.

Hypothesis Testing

The Wilcoxon test was used to compare the mean differences between two related samples of non-normally distributed data.

Table 5.
Wilcoxon Signed Rank Test Results

		N	Mean Rank	Sum of Ranks
Post-test	Negative Ranks	10 ^a	5,50	55,00
Pre-test	Positive Ranks	0 ^b	0,00	0,00
	Ties	0 ^c		
	Total	10		

- a. Post-test < Pre-test
- b. Post-test > Pre-test
- c. Post-test = Pre-test

The Wilcoxon test results showed that all participants experienced a decrease in academic stress scores after the intervention. This was indicated by the Negative Ranks value of 10, meaning that all participants had lower post-test scores than pre-test scores. No participants experienced increased (positive ranks = 0) or unchanged scores (ties =

0). The Mean Rank value of 5,50 and the Sum of Ranks value of 55,00 indicate that the decrease in scores occurred consistently across all participants.

Table 6.

Test statistics uji wilcoxon

	Post-test – Pre-test
Z	-2,818 ^b
Asymp. Sig. (2-tailed)	0,005

a. Wilcoxon Signed Ranks Test

b. Based on positive ranks

Based on the results of the Wilcoxon signed-rank test, a Z value of -2.818 was obtained with an Asymp. Sig. (2-tailed) value of 0.005. The significance value, which was smaller than 0,05 ($p < 0,05$), indicates a significant difference between the pre and post-test scores.

Discussion

Overall, these findings support the hypothesis that self-talk techniques significantly reduce students' academic stress. The results reinforce coping stress theory, which states that self-management techniques, such as self-talk, can help individuals manage the psychological pressure caused by academic demands. This study supports previous findings that self-talk is highly effective in reducing academic stress (Yin & Ko, 2023). Students who repeatedly engage in positive self-talk are more likely to experience lower academic stress. This is because the human mind often cannot clearly distinguish between imagination and reality. Positive words that are repeated continuously are interpreted by the mind as positive realities. Conversely, continuously engaging in negative self-talk is interpreted by the mind as a negative condition. Therefore, students who consistently practice positive self-talk during their academic process will perceive their experiences more positively, thereby reducing their academic stress.

Other research findings also suggest that self-talk techniques used to enhance self-efficacy are effective in managing academic stress among medical students (Popa-Velea et al., 2021). Students' inability to respond effectively to academic demands and assignments may increase their academic stress. Stress may intensify when students are unable to manage it effectively. Assignments given by lecturers are often perceived as burdensome. In fact, academic assignments are intended to train students to think critically, analyze problems, and develop the problem-solving skills needed in the workplace. Conversely, students who can respond positively to assignments are more likely to transform stress into motivation to complete academic tasks. One effective strategy for managing stress related to academic tasks is engaging in self-talk.

Previous studies have also stated that cognitive reappraisal interventions using self-talk techniques can reduce test anxiety and procrastination (Krispenz et al., 2019). Self-talk, which refers to speaking to oneself in positive or reflective ways, has been proven to be an effective tool for managing emotions and improving mental readiness in stressful situations. In academic contexts, stress associated with examinations is often triggered by excessive anxiety and a fear of failure. Positive self-talk techniques can help transform negative thinking patterns into more rational and optimistic perspectives,

thereby reducing the negative effects of stress. Procrastination, or delaying academic tasks, is a major factor contributing to stress among students. Task procrastination is often associated with anxiety, fear of failure, and feelings of being overwhelmed by numerous responsibilities. This stress may negatively affect students' academic performance and their emotional well-being. One effective way to overcome procrastination is through positive and constructive self-talk techniques.

These findings have practical implications suggesting that educational institutions should consider incorporating self-talk techniques into psychological support programs to help students manage academic stress levels. Self-talk techniques play a significant role in reducing students' academic stress. The practical implications of these findings are highly important, particularly for educational institutions responsible for students' mental well-being. Based on these findings, self-talk techniques may become part of the psychological support strategies implemented at various educational levels, both in universities and schools.

Conclusion

This study demonstrates that self-talk techniques are effective in reducing students' academic stress. There was a significant difference in academic stress levels before and after the intervention. Positive self-talk helped students transform negative thought patterns regarding academic tasks, reduce anxiety, and improve their ability to cope with pressure. These findings support coping stress theory and previous studies stating that self-talk is effective in managing academic stress. The findings suggest that self-talk techniques can be implemented as part of psychological support programs within educational institutions to help students manage stress and improve their mental well-being.

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