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THE EFFECTIVENESS OF A COGNITIVE BEHAVIORAL PROGRAMIN REDUCING PSYCHOLOGICAL STRESS AMONG 12th GRADE FEMALE STUDENTS

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Abstract: This study aimed to examine the effectiveness of a cognitive-behavioral program in reducing psychological stress among 12th-grade science stream female students. The researcher adopted the experimental method using a sample of female students from secondary schools in the Faida area, Duhuk Governorate. The sample was divided into an experimental group that underwent the cognitive-behavioral program and a control group that received no intervention. The researcher formulated two main hypotheses: that there would be no significant differences between the experimental and control groups in stress reduction, and no significant differences between pre-test and post-test scores within the experimental group. The study relied on a psychological stress scale, and the cognitive-behavioral program was prepared by the researcher. The findings revealed significant differences between the experimental and control groups in favor of the experimental group, demonstrating reduced psychological stress levels. The results also showed a statistically significant difference between pre-test and post-test scores of the experimental group, confirming the effectiveness of the cognitive-behavioral program in reducing psychological stress among participants.

Keywords: Cognitive-behavioral program, Psychological stress, Stress reduction, Secondary students, Mental health.

Abstrak: Penelitian ini bertujuan untuk menguji efektivitas program kognitif-perilaku dalam mengurangi stres psikologis di antara siswi kelas 12 jurusan sains. Peneliti mengadopsi metode eksperimen dengan menggunakan sampel siswi dari sekolah menengah di daerah Faida, Provinsi Duhuk. Sampel dibagi menjadi kelompok eksperimen yang menjalani program kognitif-perilaku dan kelompok kontrol yang tidak menerima intervensi apa pun. Peneliti merumuskan dua hipotesis utama: bahwa tidak akan ada perbedaan signifikan antara kelompok eksperimen dan kontrol dalam pengurangan stres, dan tidak ada perbedaan signifikan antara skor pra-tes dan pasca-tes dalam kelompok eksperimen. Penelitian ini mengandalkan skala stres psikologis, dan program kognitif-perilaku disiapkan oleh peneliti. Temuan tersebut mengungkapkan perbedaan signifikan antara kelompok eksperimen dan kontrol yang menguntungkan kelompok eksperimen, yang menunjukkan berkurangnya tingkat stres psikologis. Hasil tersebut juga menunjukkan perbedaan signifikan secara statistik antara skor pra-tes dan pasca-tes kelompok eksperimen, yang mengonfirmasi efektivitas program kognitif-perilaku dalam mengurangi stres psikologis di antara peserta.

Kata Kunci: Program kognitif-perilaku, Stres psikologis, Pengurangan stres, Siswa sekolah menengah, Kesehatan mental.

INTRODUCTION

In recent years, psychologists have increasingly focused on studying psychological stress due to its significant impact on both mental and physical health at individual and collective levels. This interest stems from our current era being characterized by psychological stresses and crises that have become defining features of contemporary life, accompanying the changes in human societies and their transformations across various dimensions (Al-Adawi, 2018). These stresses affect people of all ages, especially 12th-grade students who lack experience in confronting and overcoming such tensions (M. Bafdil, 2023).

Psychological stress represents one of the primary manifestations in our contemporary life. According to Mishri, global statistics indicate that 80% of modern diseases are caused by psychological stress, and 50% of patients' problems referred to doctors result from psychological stress, with 50% of society members suffering from some form of psychological stress (S. Mishri, 2016). Stresses of all types are phenomena of human life, appearing in various life situations and are the results of accelerated civilizational progress, which leads to outcomes that burden individual resistance and endurance (A. Sahrawy and B. Abaydia, 2016).

The educational environment itself can be a significant source of stress for students. Al-Adawi et al. found that academic pressures, future career uncertainty, and social expectations create a multifaceted stress experience for secondary school students (D. M. Al-Adawi and J. S. Ahmed, 2018). Similarly, Seyle noted that when stress levels exceed an individual's adaptive capacity, physiological and psychological symptoms begin to manifest, potentially leading to illness (H. Seyle, 1981). This is particularly concerning for students in critical academic periods like the 12th grade.

Wolf's research indicates that cognitive perceptions, including attitudes, thoughts, evaluations, and beliefs, play a crucial role in how students experience and respond to stressors (T. Wolf, 2024). These cognitive factors are precisely what cognitive-behavioral interventions aim to address. Suhail further emphasizes that cognitive-behavioral therapy integrates both cognitive and behavioral approaches, focusing on dealing with various disorders from a three-dimensional perspective: cognitive, emotional, and behavioral, through influencing distorted thinking processes (T. F. Suhail, 2011).

The impact of psychological stress is not limited to psychological variables but extends to the physiological performance of individuals. Bafdil explains that psychological stress may lead to reduced sleep quality, duration, and physiology while increasing the production of stress hormones that hinder sleep (M. Bafdil, 2023). The relationship between stress and sleep is bidirectional—lack of sleep increases stress levels, and stress reduces and disturbs sleep (Munggarani et al, 2025). This physiological impact

makes addressing stress particularly important for students whose academic performance depends on adequate rest and cognitive functioning.

For 12th-grade students specifically, obtaining a certificate and joining university represents a significant life event, as they expect university study to provide more learning opportunities and choices for their future careers (Abdullah, 2011). Additionally, they attempt to build their aspirations and shape their ambitions, which requires constant effort and engaging in competition with their peers. All these demands may exceed their personal abilities and capabilities, potentially bringing them feelings of psychological stress (A. H. Nader, 2014). Zubair and Falih's research explains how using the cognitive model (paradigm) can reduce psychological stress among football players by influencing stress pathways and perceptions (Zubair et al, 2022.

According to Hawadif and Shakib, when a person is under psychological stress, a series of interactions occur in the brain and nervous system, leading to numerous psychological changes (S. Hawadif and H. Hamidi, 2020). One psychological change associated with stress is anxiety; a person under stress generally feels excessive anxiety even when there is no real or direct threat. This anxiety can become chronic and affect a person's ability to concentrate or make sound decisions. Many stressed individuals suffer from pessimism or negative thinking. A person under stress expects things to worsen or that the future will be full of difficulties, which reinforces feelings of frustration and despair.

The effectiveness of cognitive-behavioral approaches in addressing these issues has been documented in multiple contexts. Fournier demonstrated that CBT interventions significantly reduced test anxiety and associated physiological symptoms in students (C. Fournier, 2015). Similarly, Kandilji noted that well-designed interventions can help students develop more adaptive responses to academic stressors (A. I. Kandilji, 2012). These findings suggest that cognitive-behavioral programs may be particularly well-suited to addressing the psychological stress experienced by 12th-grade students.

The current research aims to investigate the effectiveness of a cognitive-behavioral program in reducing psychological stress among 12th-grade female students. The study hypothesizes that: 1) There is no statistically significant difference at the (0.05) level between the mean scores of psychological stress reduction in the experimental and control groups; and 2) There is no statistically significant difference at the (0.05) level between the pre-test and post-test scores in reducing psychological stress among the experimental group. The research is limited to secondary schools in the Faida area of Duhuk Governorate during the 2024-2025 academic year, focusing specifically on female 12th-grade science stream students.

Literature Review

Psychological stress is a central topic in psychology, representing physical, mental, and emotional responses to internal or external demands that exceed an individual's ability to adapt. Hans Selye, one of the pioneering researchers in this field, described stress as "a non-specific response of the body to any demand," introducing what became known as the General Adaptation Syndrome (GAS) (H. Seyle, 1981). This model outlines three stages the body undergoes when facing stress: alarm, resistance, and exhaustion.

Building on this physiological understanding, Richard Lazarus and Susan Folkman developed a more cognitive perspective, defining psychological stress as "the relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being (R. Lazarus and S. Folkman, 1984). This definition emphasizes that stress is not merely a biological response but is also influenced by an individual's perception and interpretation of the situation.

From a neuroscience perspective, McEwen describes stress as an interaction between the central nervous system and the hormonal system, leading to the release of hormones such as cortisol and adrenaline in response to stressful stimuli (B. S. McEwen, 2007). This perspective helps explain the physical manifestations of stress that many individuals experience, including sleep disturbances, cardiovascular issues, and immune system suppression.

The cognitive-behavioral approach to managing psychological stress has gained significant attention in recent research. As noted by Keith, cognitive-behavioral therapy (CBT) has shown greater relative effectiveness in treating psychological problems compared to other psychotherapies and pharmacological treatments (S. J. Keith, 2010). Its importance lies in its lasting effect over the long term, with no significant difference between group and individual cognitive-behavioral therapy in terms of goals and effectiveness.

According to Powers, CBT is "a short-term form of therapy based on the theory and method that believes it affects how we feel emotionally, focusing on current thinking, behavioral aspects, and communication rather than previous experiences, and is directed toward problem-solving (T. Powers, 2012). This therapeutic approach integrates cognitive and behavioral techniques to address disorders from a three-dimensional perspective: cognitive, emotional, and behavioral.

The historical roots of cognitive-behavioral therapy can be traced back to some Greek philosophers, most notably Epictetus, who mentioned that individuals are not disturbed by things but by their knowledge and attitudes toward those things (T. M. H. Abdullah, 2018). Dobson explains that cognitive-behavioral therapy emerged

partly as a response to criticisms of psychoanalytic and behavioral approaches for not focusing on cognitive structures, particularly negative thoughts that affect an individual's feelings (S. K. Dobson, 2018).

Unger emphasizes that cognitive-behavioral therapy aims to understand the causes behind negative emotions and irrational beliefs, using cognitive and behavioral techniques to modify these negative beliefs and increase motivation for positive perceptions, resulting in better outcomes for life challenges (Abdurrahman et al., 2023). Beck further articulates specific goals of cognitive therapy, including making individuals aware of their thoughts, replacing distorted thoughts with accurate and correct judgments, and modifying automatic thoughts and irrational beliefs causing disturbance (Beck, Aaron, 1993).

Maher outlines additional goals of cognitive-behavioral therapy, including learning new skills, supporting existing ones through cognitive structure learning, finding natural coping skills, and generalizing them (S. Maher, 2006). The therapy also teaches cases to follow and recognize reality within the framework of current thoughts and face challenges with new ideas. Theodoratou et al. notes that individual differences play an important role in how people evaluate situations, and what one person considers stressful, another may not (Theodoratou et al., 2023).

Nong and colleagues describe two primary pathways for stress response: the "fast path" through the sympathetic nervous system and the "slow path" through the hypothalamus (Nong et al., 2014). When the amygdala informs the hypothalamus that danger is imminent, the hypothalamus secretes hormonal messengers and releases corticotropin hormone. This hormone affects the pituitary gland in the brain, leading to the secretion of adrenocorticotropic hormone (ACTH), which travels through the blood to the adrenal cortex and leads to the secretion of the stress hormone cortisol.

The effectiveness of cognitive-behavioral interventions in reducing psychological stress has been demonstrated in various studies. Shahmiley found significant improvements in behavioral problems among primary education students after implementing a cognitive-behavioral program (Shamila, 2023). Similarly, Morin et al. reported that CBT improved sleep quality by 60% in experimental groups suffering from chronic stress-related insomnia, with nighttime awakening reduced by 45% (C. M. Morin and G. Belleville, 2023).

Larson and Ramahi's study evaluated the effectiveness of relaxation techniques in reducing anxiety and psychological stress among elementary school students during examination periods. Their results showed a reduction in anxiety and psychological stress in the experimental group during examinations, while the control group showed no such reduction (C. Fournier, 2014). These findings underscore the value of teaching relaxation techniques to students facing academic pressures.

Studies have confirmed that high levels of psychological stress among students negatively affect their academic performance and ability to learn effectively, highlighting the need for implementing stress management strategies in educational institutions (Qolamani, 2023). This connection between stress and academic functioning highlights the need for effective interventions, particularly for students in critical academic years like the 12th grade.

Research by Rutter et al. identified several core components that make cognitive-behavioral interventions effective: cognitive restructuring (identifying and challenging negative thoughts), relaxation training (progressive muscle relaxation and deep breathing exercises), and coping skills development (problem-solving, time management, and positive thinking) (Rutter, 2011). These elements work together to help individuals manage both the cognitive and physiological aspects of stress.

Studies examining the physiological pathways of stress responses have clarified two primary routes. The "fast path" operates through the sympathetic nervous system, with the amygdala processing potentially threatening stimuli and triggering immediate physiological responses through catecholamines like adrenaline and noradrenaline (Akiki, 2025). The "slow path" works through the hypothalamus-pituitary-adrenal axis, resulting in the release of cortisol, which affects multiple body systems (Musa et al, 2024). Understanding these pathways helps explain why stress management techniques that address both cognitive appraisal and physiological activation are particularly effective.

In the educational context, Ehde and Dillworth found that CBT interventions tailored for students helped them develop more adaptive responses to academic pressures, leading to improvements in both psychological well-being and academic performance (M. Ehde and T. M. Dillworth, 2014). Similarly, Thoma and Pilecki demonstrated that contemporary cognitive-behavioral approaches effectively address the specific stressors faced by adolescents in educational settings by combining cognitive restructuring with behavioral activation and relaxation training (N. Thoma and B. Pileck, 2015).

Meng et al. (2021) emphasize the importance of adapting cognitive behavioral therapy interventions to the specific needs and developmental characteristics of patients with mild to moderate depression (Meng, 2021). For 12th-grade students, this means addressing both academic stressors and developmental challenges that arise during this critical period. Rechenberg and Rebecca further suggests that group-based CBT interventions can be particularly effective for adolescents, as they provide both therapeutic benefits and peer support (Rechenberg et al., 2021).

METHODOLOGY

Experimental Design

This study employed an experimental design to examine the effect of independent variables on dependent variables under controlled conditions. In this research, the experimental design measured the effectiveness of the cognitive-behavioral program (independent variable) in reducing psychological stress (dependent variable) among 12th-grade female students by comparing the results of an experimental group receiving the program with a control group receiving no intervention.

Figure 1. Experimental Design of the Research

Group	Pre-test	Independent Variable	Post-test
Experimental	Psychological Stress	Cognitive-Behavioral Program	Psychological Stress
Control	Psychological Stress	Regular Approach	Psychological Stress

Research Population

The research population consisted of 12th-grade (scientific stream) female students in secondary schools under the Simile Education Directorate, totaling 1,312 students for the 2024-2025 academic year.

Research Sample

The sample can be defined as a model that includes and reflects a part of the original community units concerned with the research, being representative and carrying its common characteristics. To determine the research sample, the researcher purposively selected two secondary schools (Zana and Kewan) for females, due to their administrations' willingness to conduct the experiment and their proximity to the researcher's residence. Then, randomly, the researcher chose Zana Secondary School as the experimental group with 29 students, while Kewan Secondary School was selected as the control group with 30 students, making the total research sample 59 students. Subsequently, equivalence was established between the students of both groups in several variables (age in months, intelligence degree, pre-test psychological stress scale score, and parents' educational level).

Research Tools

To measure psychological stress among students and collect data in the current research, the researcher adopted Al-Zawawi's (1992) psychological stress scale due to its suitability for the research sample. [40] This scale consists of 35 items with three alternatives and measures three dimensions: the physiological dimension (9 items), the cognitive dimension (12 items), and the psychological dimension (14 items).

Psychometric Properties of the Scale

To determine the psychometric properties of the psychological stress scale, the researcher applied the scale to an exploratory sample of 160 female students. Several statistical procedures were implemented to ensure the scale's validity and reliability.

Scale Validity

The items of the psychological stress scale were presented to a group of experts and specialists in education and psychology to determine their opinions on the validity of the items and their measurement of psychological stress among 12th-grade female students. The scale with all its items received expert agreement at rates ranging between 80-100%, with only minor modifications suggested and three items recommended for deletion. These modifications were implemented, thus establishing the face validity of the scale.

Discriminative Power

After collecting and organizing the sample data, the researcher applied a statistical technique to assess each item's ability to distinguish between high and low scorers. The upper and lower 27% of scores (43 students in each group) were compared using t-tests to determine each item's discriminative power. The analysis revealed that most items showed statistically significant differences between the high and low groups, with calculated t-values exceeding the critical value of 1.99 at a significance level of 0.05 and 84 degrees of freedom. Only three items (items 3, 4, and 14) failed to demonstrate adequate discriminative power, with t-values below the critical threshold. These non-discriminating items were subsequently excluded from further analyses.

Item-Scale Correlation

To establish the internal consistency of the scale, Pearson correlation coefficients were calculated between each item and the total scale score. The analysis showed that all remaining items demonstrated statistically significant correlations with the total scale, with correlation coefficients ranging from 0.182 to 0.411, all exceeding the critical value of 0.15 at a significance level of 0.05 and 158 degrees of freedom. These results confirmed that each item contributed meaningfully to the overall construct being measured.

Reliability of the Scale

The reliability of the psychological stress scale was evaluated using Cronbach's alpha coefficient. The analysis of item variances and total scale variance yielded an alpha coefficient of 0.80, which is considered a strong indicator of internal consistency reliability. The individual item variances ranged from 0.387 to 0.647, with a sum of variances totaling 15.870 compared to a total scale variance of 69.822. This high

reliability coefficient indicates that the scale provides consistent measurements across different administrations and can be considered a reliable instrument for assessing psychological stress in the target population.

Following these psychometric analyses, the final version of the psychological stress scale consisted of 29 items with three response alternatives per item. This refined instrument was then ready for application to the main study sample to assess the effectiveness of the cognitive-behavioral intervention program.

Statistical Methods

The Statistical Package for Social Sciences (SPSS) program was used to statistically process the study data. Through the current research, the following were used: (t-test for two independent samples to verify the first hypothesis, Pearson correlation coefficient formula, Alpha Cronbach formula, Chi-square formula to verify the equivalence of the two groups, and t-test for two correlated samples) and the t-test for two correlated samples to verify the second hypothesis.

Research Results and Discussion

First: Results Related to the First Hypothesis:

There is no statistically significant difference at the level (0.05) between the mean scores of reducing psychological stress among members of the experimental and control groups.

To verify this hypothesis, the researcher extracted the mean and standard deviation for the differences in scores between the pre and post-tests for members of the two groups, then applied the t-test for two independent samples, and the results were included in Table (1).

Table 1. T-test for Two Independent Samples in Reducing Psychological Stress Among Members of the Two Groups

Groups	Number	Mean	Standard Deviation	T-value		Significance
				Calculated	Tabular	
Experimental	29	8.1	5.978	11.1	2.00 (0.05) (57)	Significant in favor of the experimental
Control	30	-5.57	3.07			

From Table 1, it is noted that the calculated t-value reached (11.1), which is greater than the tabular t-value of (2.00) at the level (0.05) and degree of freedom (57), thus rejecting the null hypothesis and accepting the alternative that there is a difference between the mean scores of the two groups' members in favor of the experimental group. This confirms that the difference between the two groups results from an actual effect of the program on the students. This statistical difference supports the conclusion that the cognitive-behavioral program had an effective impact in reducing the level of psychological stress among the individuals of the experimental group.

Second: Results Related to the Second Hypothesis:

There is no statistically significant difference at the level (0.05) between the scores of the pre and post applications in reducing psychological stress for members of the experimental group.

To verify this hypothesis, the researcher extracted the mean for the group members in the two applications, then the mean and standard deviation for the difference between them, and then applied the t-test for two correlated samples, and the results were included in Table 2.

Table 2. T-value for Two Correlated Samples in Psychological Stress Among Members of the Experimental Group

Psychological Stress Scale	Mean	Number	Mean of the Difference	Standard Deviation	T-value		Significance
					Calculated	Tabular	
Pre-application	75.17	29	8.1	5.97	7.3	2.04 (0.05) (28)	Significant in favor of the pre-application
Post-application	67.07	29					

From Table (5), it is noted that the calculated t-value reached (7.3), which is greater than the tabular t-value of (2.04) at the level (0.05) and degree of freedom (28), thus rejecting the null hypothesis and accepting the alternative, meaning there is a difference between the two applications in favor of the pre-application. This means that the effectiveness of the program reduced the percentage of psychological stress among members of the experimental group because the mean of the post-application decreased and reached (67.07).

DISCUSSION

The results of this study revealed significant differences between the experimental and control groups in psychological stress levels, with the experimental group showing substantial reductions following the cognitive-behavioral intervention. This finding aligns with the theoretical framework suggesting that cognitive-behavioral approaches can effectively address psychological stress by targeting both cognitive distortions and physiological responses. The effectiveness of the cognitive-behavioral program in this study can be attributed to several key mechanisms that worked together to reduce psychological stress among the participating students.

Cognitive restructuring, a core component of the program, played a crucial role in modifying negative and irrational thoughts that contribute to elevated stress levels. By training participants to identify patterns of negative thinking and replace them with more logical and realistic interpretations, individuals were able to reduce the impact of stressors. This finding is consistent with Beck's cognitive model, which emphasizes the role of distorted thinking in psychological distress. The ability to

recognize and challenge catastrophic thinking about academic performance and future outcomes appears to have been particularly beneficial for these 12th-grade students who face significant pressure regarding their academic future.

The relaxation training component of the program demonstrated notable effectiveness in reducing the physiological symptoms associated with stress. The progressive muscle relaxation and deep breathing exercises taught in the program allowed students to calm their nervous systems and reduce the physical tension that accompanies psychological stress. As observed by the researcher during the cognitive-behavioral therapy sessions, relaxation techniques enabled members of the experimental group to exercise greater control and emotional regulation, transforming a range of negative feelings into positive ones such as optimism, self-confidence, and hope for a successful future. This enabled program participants to experience those feelings and emotions that replaced negative feelings of frustration, anxiety, and tension when dealing with stressful life situations afterward.

These findings align with Morin et al.'s research, which found similar improvements in stress reduction and sleep quality following CBT interventions. The physiological benefits of relaxation training likely contributed to improvements in sleep patterns, which in turn may have created a positive feedback loop of reduced stress levels. This bidirectional relationship between stress and sleep, as noted by Bafdil, highlights the importance of addressing both cognitive and physiological aspects of stress management.

The development of coping skills enhanced participants' ability to deal with daily stressors in healthy and adaptive ways, such as problem-solving skills, time management, and positive thinking, which reduced the psychological burden resulting from external pressures. These improved coping strategies appear to have given students a greater sense of control over their academic challenges, which is particularly important during the 12th grade when academic pressures are at their peak. This finding is consistent with research by Rutter et al., which identified coping skills development as a key component of effective cognitive-behavioral interventions for stress reduction.

The results of this study also demonstrated that the cognitive-behavioral program was effective in reducing levels of academic anxiety and enhancing self-confidence among female students. It also helped improve positive coping skills for exam situations, which was reflected in the statistically significant differences between the pre-test and post-test scores of the experimental group compared to the control group that did not undergo the intervention. This improvement in academic confidence is particularly noteworthy given the importance of the 12th grade for students' future educational opportunities.

The pre-intervention assessment revealed high levels of psychological stress among the sample, which can be attributed to various factors affecting individuals' lives, such as study pressures, social relationships, constant anxiety about the future, or daily challenges. These results reflect the psychological state of the students before the program intervention began. High levels of stress are a common feature in many studies focusing on the impact of psychological pressures on individuals in various contexts, making therapeutic intervention to reduce these negative feelings important.

After implementing the cognitive-behavioral program, the post-test results showed a marked improvement in psychological stress levels among the sample. The cognitive-behavioral program relies on techniques aimed at modifying negative thought patterns and promoting positive behavioral interactions. By learning how to identify and challenge their negative thoughts, individuals were able to reduce feelings of anxiety and psychological pressure that were increasing their stress levels. For example, students were taught how to reformulate negative thoughts and transform them into more positive and realistic thoughts. This finding is consistent with research by Shahmiley, which found similar improvements in behavioral problems following a cognitive-behavioral intervention.

One of the main reasons for the improvement in psychological stress may be the increased self-awareness among students. By examining thoughts and feelings that may lead to stress, students were able to identify the factors causing stress in their daily lives and how to deal with them more effectively. Psychological stress is considered a natural response to challenging situations, but individuals who have cognitive and behavioral tools to modify their responses to challenges can adapt better. The program that was applied helped students develop these tools, making them more able to deal with daily life pressures calmly and effectively.

The current findings are also consistent with Larson and Ramahi's research, which demonstrated the effectiveness of relaxation techniques in reducing anxiety and psychological stress among students during examination periods. The positive outcomes observed in the present study further support the value of integrating relaxation training into cognitive-behavioral interventions for students experiencing academic stress.

The significant reduction in stress levels observed in the experimental group but not in the control group provides strong evidence for the causal role of the cognitive-behavioral program in producing these improvements. This pattern of results aligns with previous research on cognitive-behavioral interventions for stress management, suggesting that the effects are not merely due to the passage of time or other uncontrolled factors.

It is worth noting that the effectiveness of the program in this study may have been enhanced by the group format, which provided opportunities for social support and

shared learning among participants. This aspect of the intervention may be particularly beneficial for adolescents, for whom peer relationships are especially important. Future research could further explore the relative contributions of individual intervention components and the potential added value of delivering the intervention in a group setting.

CONCLUSION

The cognitive-behavioral program significantly contributed to reducing psychological stress among 12th-grade female students in general. Based on these findings, the researcher recommends utilizing counseling programs that work to alleviate psychological stress among students, designing counseling programs that help develop strategies for positive coping with psychological stress among students, and considering individual differences between students in the classroom while ensuring good classroom management and understanding students' needs and desires.

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