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## Promoting Emotional Well-Being and Coping Skills through a Brief School-Based Psychoeducational Program: A Pilot Study in Greek Primary Education

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### ABSTRACT

Schools play a fundamental role in fostering children's emotional well-being, social development, and readiness to cope with everyday academic and interpersonal challenges. Universal psychoeducational programmes implemented within the school setting represent a promising preventive approach for strengthening students' emotional competencies and promoting positive mental health. However, evidence regarding the effectiveness of brief school-based psychoeducational interventions for preadolescent students remains limited. The present pilot study evaluated the effectiveness of a brief psychoeducational programme designed to promote emotional well-being, strengthen coping skills, and support psychological resilience among students attending Greek primary schools. A pre-post intervention design was employed with a sample of 29 sixth-grade students enrolled in a public primary school in Greece. Participants completed standardized self-report measures assessing psychological resilience, emotional well-being (depression, anxiety, and stress symptoms), and coping strategies before and after participation in the programme. The intervention comprised five structured psychoeducational sessions grounded in cognitive-behavioural principles, emotional literacy, and active skills development, delivered within the regular school curriculum. Data were analysed using parametric and non-parametric statistical procedures, as appropriate. Participation in the programme was associated with significant reductions in depression, anxiety, and stress symptoms, together with significant improvements in adaptive coping strategies. Although psychological resilience showed a positive trend following the intervention, the observed improvement did not reach statistical significance. These findings suggest that brief school-based psychoeducational programmes can contribute to promoting emotional well-being and strengthening adaptive coping skills among preadolescent students. Embedding preventive psychoeducational initiatives within everyday school practice may represent a feasible and sustainable strategy for supporting students' social and emotional development and fostering positive educational experiences in primary education.

### Introduction

Emotional well-being during late childhood and early adolescence has received increasing attention from educators, mental health professionals, and policymakers. Preadolescence represents a critical developmental period characterized by increasing academic demands, expanding peer relationships, and heightened emotional sensitivity, all of which may increase vulnerability to stress and emotional distress. When these demands exceed children's coping resources, they may adversely affect

psychological adjustment, academic engagement, and social functioning [1].

Recent research indicates that anxiety, stress, and emotional dysregulation are increasingly observed among school-aged children, often remaining undetected or insufficiently addressed within educational settings [2, 3]. Schools provide an accessible context for the early identification and prevention of emotional difficulties [4, 5]. As universal settings, they are uniquely po-

sitioned to deliver preventive mental health interventions that foster emotional competencies and adaptive coping skills [6-8]. Such programmes commonly incorporate cognitive-behavioural techniques and emotional skills training to strengthen children's ability to manage everyday stressors [6].

Psychoeducation has been widely recognized as an effective preventive approach within school-based mental health frameworks. By integrating psychological knowledge with educational practices, psychoeducational interventions promote emotional understanding, emotion regulation, self-efficacy, and resilience-building among students [9-11]. Universal programmes also strengthen protective factors while minimizing stigma, providing inclusive opportunities to support all students regardless of risk status [12, 13]. Beyond promoting mental health, these programmes contribute to students' social and emotional learning, classroom participation, academic adjustment, and continuity of learning [9, 10].

Within this context, psychological resilience has emerged as an important protective factor. Resilience is widely conceptualized as the dynamic capacity to adapt positively to stress and adversity while maintaining psychological well-being [14-16]. In school-aged children, resilience has been associated with better emotional regulation, healthier social relationships, and fewer internalizing symptoms [17, 18]. As a malleable capacity rather than a fixed trait, resilience can be strengthened through supportive environments and psychoeducational interventions that enhance coping skills, self-worth, and self-efficacy [19, 20, 28].

Adaptive coping strategies are also central to children's responses to everyday stressors. Effective coping has been associated with lower emotional distress, whereas maladaptive coping is linked to greater anxiety and depressive symptoms [21]. Teaching coping skills early in development may therefore promote long-term mental health and positive adjustment [22, 23]. Consistent with this, universal school-based programmes have demonstrated significant, although generally modest, reductions in depression and anxiety symptoms among children and adolescents [24].

Despite growing evidence supporting school-based psychoeducational interventions, important gaps remain. Research involving preadolescent students is still limited, and findings regarding changes in psychological resilience following brief interventions are inconsistent (Boumpouli, 2021). Moreover, schools often face resource and implementation challenges, highlighting the need for evidence-based interventions that are both feasible and adaptable to diverse educational contexts [19, 25-27]. Within contemporary educational systems, promoting emotional well-being has become an integral component of everyday school practice, yet relatively few studies have evaluated brief universal psychoeducational programmes implemented under natural classroom conditions.

The present study addresses these gaps by evaluating the effectiveness of a school-based psychoeducational intervention for preadolescent students. Specifically, the intervention aimed to reduce symptoms of depression, anxiety, and stress while enhancing coping strategies and psychological resilience. Using a pre-post design, the study contributes to the growing evidence supporting preventive mental health initiatives in educational settings and examines whether a brief universal psychoeduca-

tional programme can improve emotional well-being and coping skills among early adolescents [28, 29].

To address this aim, the following research questions were formulated:

1. Does participation in a school-based psychoeducational program reduce levels of depression, anxiety, and stress among preadolescent students?
2. Does the program contribute to improvements in students' coping strategies when facing stressful situations?
3. Does participation in the program lead to changes in students' levels of psychological resilience?

## Method

### Study design

The present study employed a pre-post intervention design to examine the effectiveness of a school-based psychoeducational program targeting emotional distress, coping strategies, and psychological resilience in preadolescent students. All participants completed self-report measures before (pre-test) and after (post-test) the implementation of the intervention. Given the preventive and exploratory nature of the study, no control group was included.

### Population and Sample

The sample consisted of 29 sixth-grade students attending a public primary school in Greece. Participants were in preadolescence, corresponding to the final year of primary education. The majority of the students were girls, reflecting the composition of the participating class. All students enrolled in the class were invited to participate in the intervention, and participation was voluntary.

The inclusion criteria were enrollment in the sixth grade and participation in both the pre- and post-intervention assessment phases. No exclusion criteria regarding psychological or learning difficulties were applied, as the intervention was designed as a universal, school-based preventive program.

### Measurement Instruments

A brief questionnaire was administered to collect basic sociodemographic information, including age and gender.

### Psychological Resilience

Psychological resilience was assessed using the Greek version of the Resilience Scale (RS-25) developed by Wagnild and Young (1993) [30]. The RS-25 is a widely used self-report instrument comprising 25 items rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Participants indicate the extent to which each statement reflects their personal attitudes, experiences, and characteristics.

The scale assesses five interrelated dimensions of resilience—equanimity, perseverance, self-reliance, meaningfulness, and existential aloneness—which are organized into two broader domains: Personal Competence and Acceptance of Self and Life [30]. The Resilience Scale has consistently demonstrated excellent psychometric properties across diverse populations, including high internal consistency, good construct validity, and satisfactory face validity. The original version reported a Cronbach's alpha coefficient of 0.91, indicating excellent internal reliability [30].

For the purposes of the present study, the validated Greek version of the RS-25 was employed. The instrument was translated following an independent forward-backward translation procedure and culturally adapted for the Greek population by Mustaki and Stalikas (Stalikas et al., 2012). The Greek validation study, conducted on a nationwide sample of 404 participants, confirmed the scale's satisfactory reliability and validity, supporting its use for assessing psychological resilience in both adolescents and adults. The use of the validated Greek version ensures that the instrument has established psychometric properties and is appropriate for use in Greek-speaking populations.

### Emotional Distress

Emotional distress was assessed using the Greek version of the Depression Anxiety Stress Scales-21 (DASS-21), originally developed by Lovibond and Lovibond (1995) [31]. DASS-21 is the short form of the original 42-item instrument and is designed to assess three related dimensions of negative emotional states: depression, anxiety, and stress [31]. The questionnaire comprises 21 items, each of the three subscales consisting of seven items.

Responses are recorded on a 4-point Likert scale ranging from 0 ("Did not apply to me at all") to 3 ("Applied to me very much, or most of the time"), reflecting the extent to which each statement applied to the participant during the previous week. The Depression subscale assesses symptoms such as dysphoria, hopelessness, loss of interest, anhedonia, and reduced self-worth. The Anxiety subscale measures autonomic arousal, situational anxiety, and the subjective experience of anxious affect, while the Stress subscale evaluates persistent tension, irritability, over-activity, difficulty relaxing, and impatience [32].

Scores for each subscale are calculated by summing the corresponding item responses. Following the standard scoring procedure for DASS-21, subscale scores are multiplied by two to obtain scores comparable to those of the original DASS-42. Higher scores indicate greater levels of depression, anxiety, and stress, respectively.

DASS-21 has demonstrated excellent psychometric properties, including strong construct validity, content validity, and high internal consistency. The overall scale has been reported to exhibit excellent reliability, with a Cronbach's alpha coefficient of 0.93.

The present study employed the validated Greek version of the DASS-21, which was translated, culturally adapted, and psychometrically validated by Lyrakos, Arvaniti, and Kostopanagiotou in a sample of 537 Greek adults aged 17–67 years (Stalikas et al., 2012). Previous studies have confirmed the instrument's reliability and validity for assessing symptoms of depression, anxiety, and stress in Greek populations. Accordingly, the validated Greek version of the DASS-21 was considered appropriate for assessing emotional well-being in the present sample.

### Coping Strategies

Coping strategies were assessed using the Greek version of the Ways of Coping Questionnaire (WCQ) developed by Lazarus and Folkman (1984) and adapted for the Greek population by Karadimas (2020) [33, 34]. The questionnaire is a widely used self-report instrument designed to assess the cognitive and behavioral strategies individuals employ to manage stressful situations. The Greek version consists of 38 items rated on a 4-point Likert scale, ranging from 0 ("Never") to 3 ("Often"), with re-

spondents indicating how frequently they use each coping strategy when faced with a stressful event or situation.

The instrument assesses five coping dimensions: Positive Approach, Seeking Social Support, Wishful Thinking/Daydreaming, Avoidance/Escape, and Assertive Problem Solving. Scores are calculated separately for each subscale by summing the corresponding item responses. Higher scores indicate more frequent use of the respective coping strategy, whereas lower scores reflect less frequent use. For the purposes of the present study, a total coping score was calculated to provide an overall indicator of adaptive coping.

The Greek version of the WCQ has demonstrated satisfactory psychometric properties, with acceptable construct validity and internal consistency. Cronbach's alpha coefficients for the five subscales range from 0.60 to 0.79, indicating acceptable reliability across the different coping dimensions.

For the present study, the validated Greek version translated and culturally adapted by Karadimas (2020) was employed [34]. The validation study was conducted on a sample of 403 Greek adults (mean age = 36.7 years) and confirmed the instrument's suitability for assessing coping strategies in Greek-speaking populations. The availability of a validated Greek version supports its use in research examining coping processes within Greek educational settings.

### Psychoeducational Intervention

The psychoeducational program was specifically designed for preadolescent students and implemented within the regular school environment. The intervention consisted of five structured group sessions delivered during school hours and facilitated by the researcher in the role of group facilitator.

Grounded in cognitive-behavioral principles and emotional skills training, the program emphasized experiential learning and active student participation. Its primary objectives were to increase emotional awareness and understanding, enhance emotion regulation skills, reduce emotional distress associated with stress and anxiety, strengthen adaptive coping strategies, and foster psychological resilience.

The psychoeducational program consisted of five structured group sessions delivered within the regular school setting. Each session addressed specific emotional, cognitive, and behavioral targets relevant to stress management and psychological adjustment in preadolescent students. The intervention followed a sequential and skills-based framework, beginning with group formation and the establishment of shared norms, progressing to emotional awareness and identification, understanding anxiety and stress-related cognitive processes, and the development of adaptive coping and problem-solving skills. The final session focused on integration and consolidation of the skills acquired throughout the program.

Sessions incorporated age-appropriate psychoeducational material, guided group discussions, role-playing activities, and experiential exercises designed to help students recognize stressors, identify and regulate emotional responses, challenge maladaptive thoughts, and apply adaptive coping strategies in everyday school and social situations. Throughout the intervention, particular emphasis was placed on creating a supportive

and psychologically safe group environment that encouraged active participation while avoiding any expectation of therapeutic

self-disclosure. An overview of the thematic units and structured activities implemented across sessions is presented in Table 1.

**Table 1: Thematic Units and Structured Activities of the Psychoeducational Program**

| Session | Thematic Focus                                            | Structured Activities                                                                                                                                                                       |
|---------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Group Introduction and Establishment of Group Norms       | (A) Play-based self-expression and introduction activity<br>(B) Name recognition and group bonding exercise<br>(C) Establishing group rules and expectations                                |
| 2       | Emotional Awareness and Emotional Identification          | (A) Identifying emotions across different situational contexts<br>(B) Perspective-taking and emotional response exploration<br>(C) Externalization of worries through structured expression |
| 3       | Understanding Anxiety and Cognitive Responses to Stress   | (A) Gradual awareness of anxiety and stress intensity<br>(B) Identification and cognitive restructuring of negative thoughts<br>(C) Development of psychological coping resources           |
| 4       | Development of Adaptive Coping and Problem-Solving Skills | (A) Identifying personal and social support resources<br>(B) Peer-support and self-help skill development<br>(C) Structured problem-solving strategies                                      |
| 5       | Integration, Consolidation, and Program Closure           | (A) Reflection on anxiety-related experiences and coping growth<br>(B) Synthesis of coping strategies through creative integration<br>(C) Review and consolidation of key skills acquired   |

### Procedure and Ethical Considerations

The study was conducted in two phases following a pre-test/post-test design. During the first phase, baseline data were collected prior to the implementation of the psychoeducational intervention using the study questionnaires (pre-test). The second phase took place immediately following the completion of the intervention, during which participants completed the same psychometric measures to assess changes in the study variables (post-test) [35].

Prior to data collection, ethical approval for the study was obtained from the Department's General Assembly in accordance with institutional regulations. Following approval, a meeting was held with the school principal and the teachers of the two participating sixth-grade classes to present the study objectives, explain the data collection procedures, and describe the structure and content of the psychoeducational program.

Written informed consent was subsequently obtained from the parents or legal guardians of all participating students. The consent form included detailed information regarding the purpose of the study, the voluntary nature of participation, the participants' right to withdraw at any stage without consequences, and the measures taken to ensure anonymity and the confidential handling of all research data. Before the intervention commenced, an introductory session was conducted with all students whose parents had provided consent. During this session, participants were informed about the aims of the program, the planned activities, and the overall study procedure.

The pre-test assessment was administered in the participants' regular classroom environment. The principal investigator provided standardized instructions while avoiding any form of guidance that might influence participants' responses. Questionnaire completion required approximately one class period.

Following the baseline assessment, the psychoeducational intervention was implemented over a period of approximately six weeks, from early November to mid-December. The intervention consisted of five independent weekly sessions, each lasting

two class periods and facilitated by the principal investigator. Before each session, the classroom was rearranged to accommodate the planned activities and facilitate group interaction. Students were assigned to small groups of four or five members to promote equal participation, collaboration, and active engagement throughout the intervention.

Upon completion of the program, participants completed the same set of questionnaires under conditions identical to those of the pre-test assessment. Finally, participants completed a brief feedback questionnaire designed to evaluate their experiences of the intervention. Students were invited to identify the activities they found most and least helpful, describe the perceived benefits of the program, and suggest potential improvements. This qualitative feedback was collected to complement the quantitative findings and to inform future refinement of the intervention. All 29 participants completed both assessment phases and the intervention; therefore, no participant attrition or dropout was observed.

### Data Analysis

Statistical analyses were conducted using The Statistical Package for Social Sciences (SPSS version 29). Descriptive statistics were calculated for all study variables. To examine changes between pre- and post-intervention measurements, parametric or non-parametric tests were applied depending on the distribution of the data. Statistical significance was set at  $p < .05$ . The researcher served as the facilitator of the psychoeducational program, adopting a supportive and non-therapeutic role consistent with psychoeducational group principles. Emphasis was placed on guidance, encouragement, and the creation of a safe learning environment, rather than clinical intervention.

### Results

#### Participant Characteristics

The study included 29 preadolescent students enrolled in the sixth grade of a public primary school in Greece. All participants were 11 years old and had been born in Greece. The sample comprised 19 girls (65.5%) and 10 boys (34.5%).

Most participants reported that their fathers were employed full-time (93.1%), whereas 3.4% reported part-time employment and 3.4% reported unemployment. Regarding maternal employment, 65.5% of the participants reported that their mothers were employed full-time, 24.1% reported part-time employment, and 10.3% reported that their mothers were unemployed. With respect to fathers' educational attainment, 48.3% had completed university education, 31.0% held a postgraduate degree, 17.2% had completed high school, and 3.4% had completed junior high school. Regarding mothers' educational attainment, 48.3% held a postgraduate degree, 44.8% had completed university education, and 6.9% had completed high school.

### Effects of the Psychoeducational Program

The present study examined the effectiveness of the school-based psychoeducational program on three key domains of students' mental health: psychological resilience, emotional distress (depression, anxiety, and stress), and coping strategies. Table 1 presents the descriptive statistics for all study variables before and after the intervention. Overall, participants demonstrated higher psychological resilience and improved coping strategies following the intervention, accompanied by lower levels of depression, anxiety, and stress. The statistical significance of these changes was subsequently evaluated using paired-samples t-tests and Wilcoxon signed-rank tests, as appropriate.

**Table 2:** Descriptive Statistics for Psychological Resilience, Depression, Anxiety, Stress, and Coping Strategies Before and After the Psychoeducational Intervention

| Outcome                  | Pre-intervention Mean (SD) | Post-intervention Mean (SD) |
|--------------------------|----------------------------|-----------------------------|
| Psychological resilience | 95.86 (10.31)              | 96.76* (10.49)†             |
| Depression               | 11.03 (5.01)               | 8.24 (2.56)                 |
| Anxiety                  | 9.93 (3.77)                | 7.41 (1.60)                 |
| Stress                   | 12.86 (3.97)               | 9.45 (1.64)                 |
| Coping strategies        | 98.24 (15.16)              | 118.14 (12.79)              |

### Effects of the Psychoeducational Program on Psychological Resilience

Changes in psychological resilience following the intervention were examined using a paired-samples t-test (Table 2). Although participants demonstrated a modest increase in resilience scores

after completing the psychoeducational program, the improvement did not reach statistical significance,  $t(28) = -1.47$ ,  $p = .152$ . These findings suggest that, despite a positive trend, participation in the program was not associated with a statistically significant change in psychological resilience.

**Table 3:** Paired-Samples t-Test Examining Changes in Psychological Resilience Following the Psychoeducational Intervention

| Outcome                             | t     | df | p    |
|-------------------------------------|-------|----|------|
| Psychological resilience (Pre–Post) | –1.47 | 28 | .152 |

### Effects of the Psychoeducational Program on Depression, Anxiety, and Stress

Changes in depression, anxiety, and stress were examined using the Wilcoxon signed-rank test because of the relatively small sample size and the potential violation of the assumption of normality. Participation in the psychoeducational program was associated with significant reductions in depression ( $z = -2.044$ ,  $p$

$= .041$ ,  $r = .38$ ), anxiety ( $z = -3.185$ ,  $p = .001$ ,  $r = .59$ ), and stress ( $z = -3.839$ ,  $p < .001$ ,  $r = .71$ ). The largest improvement was observed for stress, followed by anxiety, whereas depression demonstrated a moderate but statistically significant reduction. Overall, these findings indicate that the intervention was associated with meaningful improvements in students' emotional well-being.

**Table 4:** Wilcoxon Signed-Rank Test Examining Changes in Depression, Anxiety, and Stress Following the Psychoeducational Intervention

| Outcome    | z      | p      | Effect size (r) |
|------------|--------|--------|-----------------|
| Depression | –2.044 | .041   | .38             |
| Anxiety    | –3.185 | .001   | .59             |
| Stress     | –3.839 | < .001 | .71             |

Effects of the Psychoeducational Program on Coping Strategies  
Changes in coping strategies were examined using a paired-samples t-test (Table 4). Participants demonstrated significantly greater use of adaptive coping strategies following the psychoeducational intervention compared with baseline. The paired-sam-

ples t-test indicated a statistically significant improvement in coping strategies,  $t(28) = -4.64$ ,  $p < .001$ . The corresponding effect size (Cohen's  $d = 0.86$ ) was large, suggesting that the intervention had a substantial positive impact on students' use of adaptive coping strategies for managing stressful situations.

**Table 5:** Paired-Samples t-Test Examining Changes in Coping Strategies Following the Psychoeducational Intervention

| Outcome                      | t     | df | p      | Cohen's d |
|------------------------------|-------|----|--------|-----------|
| Coping strategies (Pre–Post) | –4.64 | 28 | < .001 | 0.86      |

### Discussion

The present study examined the effectiveness of a school-based psychoeducational intervention aimed at reducing emotional distress, enhancing coping strategies, and strengthening psychological resilience among preadolescent students. Overall, the

findings indicate that participation in the program was associated with significant reductions in depression, anxiety, and stress [21], as well as significant improvements in coping strategies, whereas changes in psychological resilience did not reach statistical significance. These findings provide partial support for

the effectiveness of brief, school-based psychoeducational interventions implemented within natural educational settings and highlight the potential value of preventive psychoeducational programs in promoting students' emotional well-being and adjustment within the school environment.

The significant reductions in depression, anxiety, and stress observed in the current study are consistent with previous research demonstrating the effectiveness of school-based interventions in reducing emotional distress among students [19, 36]. For instance, stress management programs implemented in elementary school settings have been associated with significant improvements in emotional functioning and reductions in psychological symptoms of stress [37]. These findings further support the role of schools as appropriate settings for the delivery of universal psychoeducational interventions that foster emotional well-being, facilitate positive adjustment, and strengthen students' capacity to cope with everyday academic and interpersonal challenges.

### **Psychological Resilience**

Regarding psychological resilience, the findings indicated an increase in mean resilience scores following the intervention; however, this improvement did not reach statistical significance. This finding suggests a positive trend toward enhanced adaptive capacity, while also highlighting complex nature of resilience as a psychological construct. Resilience is widely conceptualized as a dynamic, yet relatively stable process that develops over time through the interaction of individual, relational, and contextual factors [5].

Consequently, a short-term psychoeducational intervention may not be sufficient to produce statistically detectable changes in global resilience measures. Moreover, the considerable variability observed in post-intervention resilience scores indicates that students did not benefit uniformly from the program. Individual differences in baseline resilience, family environment, and personal coping resources may have influenced students' responsiveness to the intervention. Similar findings have been reported in previous research, where psychoeducational or preventive interventions yielded modest or non-significant effects on resilience, particularly when implemented over a limited time frame [38, 39]. These findings underscore the need for longer-duration or multi-level interventions to achieve more robust and stable changes in resilience-related outcomes. This interpretation is consistent with evidence suggesting that resilience-focused interventions may have enduring effects that become more apparent over longer follow-up periods [40].

### **Emotional Distress: Depression, Anxiety, and Stress**

In contrast to resilience, the intervention demonstrated clear and statistically significant effects on emotional distress. Levels of depression, anxiety, and stress were significantly reduced following participation in the psychoeducational program, with the strongest effects observed for anxiety and stress. These findings suggest that psychoeducational interventions focusing on emotional awareness, stress management, and cognitive-behavioral strategies may be particularly effective in alleviating immediate emotional burden among preadolescent students.

The stronger effects observed for anxiety and stress compared to depression are consistent with prior research indicating that skills-based interventions often yield more rapid benefits for

stress-related symptoms. The ability to recognize basic emotions, identify somatic stress symptoms, and implement appropriate stress-management techniques has been identified as a critical outcome of resilience-focused learning environments, enabling children to apply these skills in real-life settings to alleviate stress [41].

In contrast, depressive symptoms are often associated with more persistent cognitive, motivational, and affective processes that may be less responsive to brief preventive interventions. Consequently, longer or more intensive programs may be required to achieve comparable reductions in depression. Nevertheless, the significant decrease in depressive symptoms observed in the present study indicates that relatively brief school-based psychoeducational interventions may contribute meaningfully to early prevention efforts.

### **Coping Strategies as a Mechanism of Change**

A key finding of the present study concerns the significant improvement in coping strategies following the intervention. Students demonstrated increased use of adaptive coping approaches, accompanied by reduced variability in coping scores, suggesting greater homogeneity in skill acquisition. This finding supports the notion that psychoeducational programs may operate primarily by equipping students with concrete, transferable coping tools that can be readily applied to everyday stressors. This reciprocal relationship between symptom reduction and skill acquisition is consistent with evidence suggesting that decreases in depression and anxiety may facilitate the development of coping skills in adolescents following stressful events [42].

Importantly, improvements in coping strategies may represent a central mechanism through which reductions in anxiety and stress were achieved. By learning to identify stressors, regulate emotional responses, and apply functional coping techniques, students may have gained greater perceived control over stressful situations. This interpretation aligns with theoretical models emphasizing coping skills as a foundational component of emotional regulation and psychological adjustment during childhood and early adolescence. Specifically, cognitive-behavioral skills building interventions that teach cognitive reappraisal, emotional regulation, and problem-solving have been shown to positively impact psychosocial outcomes and reduce symptoms of depression and anxiety in adolescents [43].

### **Implications for School-Based Mental Health Interventions**

The findings of this study highlight the value of school-based psychoeducational interventions as accessible and feasible approaches for promoting students' emotional well-being. Implemented within the natural school environment, the program required minimal resources and did not rely on clinical referral pathways, making it particularly suitable for preventive applications. The present findings therefore support the integration of psychoeducational programs into routine school practices as effective means of addressing emotional distress before more severe emotional difficulties emerge. This proactive approach is consistent with evidence indicating that adequately trained educators can successfully deliver psychoeducational interventions to students, making these programs more viable and long-term [44].

Moreover, the differentiated pattern of findings - showing strong effects on emotional distress and coping but comparatively

weaker effects on resilience - suggests that brief psychoeducational programs may be particularly effective as early preventive interventions, while resilience may require longer-term or more comprehensive approaches to achieve measurable change. Schools may therefore benefit from combining short-term psychoeducational programs with broader, ongoing initiatives that target relational support, school climate, and family involvement. Such multi-component approaches are supported by growing evidence indicating that school-based universal programs can effectively improve adolescents' coping skills when implemented within the educational context [22, 45].

### Limitations and Future Research

Several limitations should be considered when interpreting the findings of the present study. First, the relatively small sample size may have limited the statistical power of the analyses and the generalizability of the findings to broader populations of pre-adolescent students. Second, the absence of a control group precludes causal inferences regarding the observed changes, as improvements cannot be attributed exclusively to the intervention. Third, all outcome measures relied on self-report questionnaires, which are inherently susceptible to response biases, including social desirability, acquiescence, and recall bias. Given the age of the participants, responses may also have been influenced by differences in reading comprehension, self-awareness, and the ability to accurately recognize and report emotional experiences. Furthermore, although validated Greek versions of the instruments were used, several have primarily been developed and validated in adult populations. Consequently, their application to preadolescent students should be interpreted with caution, and future studies should further examine their psychometric properties in younger populations. Finally, the absence of follow-up assessments precludes conclusions regarding the long-term maintenance of the intervention effects.

Future research should employ larger and more diverse samples, randomized controlled designs, and longitudinal follow-up assessments to strengthen causal inferences and determine whether improvements in emotional well-being, coping skills, and resilience are maintained over time [8, 46]. Further investigation of potential mediators and moderators, including baseline resilience, gender, family functioning, perceived social support, and school climate, would improve understanding of which students benefit most from psychoeducational programmes and under what conditions. Such evidence is essential for developing sustainable, evidence-based interventions that can be effectively implemented in educational settings [19, 29, 36, 41, 47-50].

### Conclusions

Despite these limitations, the present study provides evidence that brief, school-based psychoeducational interventions may effectively reduce emotional distress and enhance coping strategies among preadolescent students. While changes in psychological resilience did not reach statistical significance, the observed positive trend suggests that resilience may require longer intervention periods or sustained educational support to produce measurable changes. Overall, the findings support the role of psychoeducation as a practical, feasible, and scalable component of school-based mental health promotion and early prevention efforts, contributing to students' emotional well-being and positive adjustment within the school environment.

Future research should employ longitudinal or experimental

designs to examine how these relationships unfold over time and determine causal effects [50]. Such methodological rigor is essential for advancing the field beyond correlational findings toward establishing evidence-based practices that can be reliably implemented in educational settings [19, 29]. These insights provide a valuable foundation for the development of evidence-based interventions aimed at promoting student well-being, adaptive functioning, and positive educational experiences within school environments [47]. The present findings are consistent with previous research demonstrating that school-based mental health interventions can produce significant short-term reductions in psychological distress, including symptoms of depression and anxiety, across diverse adolescent populations [48]. However, the generalizability of these findings requires further investigation, as many studies lack person-level randomization or appropriate control groups, making it difficult to attribute observed improvements exclusively to the intervention rather than to other confounding factors [20, 49]. Similarly, the use of convenience sampling instead of random assignment has been identified as an important methodological limitation in comparable quasi-experimental studies, restricting the generalizability of findings to broader populations [41, 51-56].

### Ethics Approval

The study was conducted in accordance with the ethical principles of the Declaration of Helsinki. Permission to conduct the study was obtained from the General Assembly of the Department of Educational Sciences and Social Work, University of Patras. Approval was also obtained from the participating primary school prior to the implementation of the study. Written informed consent was obtained from the parents or legal guardians of all participating students before data collection. Students were informed about the purpose and procedures of the study, that participation was voluntary, and that they could withdraw at any time without consequences. All data were collected anonymously and handled confidentially throughout the study.

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### Competing Interests

The authors declare that they have no competing interests.

### Authors' Contributions

G.K. conceived and designed the study, developed and implemented the psychoeducational intervention, collected and analyzed the data, interpreted the findings, and drafted the manuscript. E.A. contributed to the literature review, interpretation of the findings, and critical revision of the manuscript. M.-N.T. contributed to the development of the intervention, interpretation of the findings, and manuscript revision. E.E.K. contributed to the literature review, manuscript revision, and editorial review. N.M. supervised the study, contributed to the interpretation of the findings, critically revised the manuscript for important intellectual content, and approved the final version. All authors

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