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EFFECTS OF SCHOOL-BASED STRESS COPING INTERVENTION ON ANXIETY, DEPRESSIVE AND STRESS SYMPTOMS AMONG ADOLESCENTS IN NIGERIAN SECONDARY SCHOOLS

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Abstract

Background Nigerian adolescents experience high levels of stress, anxiety, and depression, which may be worsened by academic and socio-cultural pressures.

Methods This was a quasi-experimental study among secondary school-going adolescents in Ogun State, Nigeria. The minimum sample size of 108 was estimated, and 125 adolescents aged 13-19 years with moderate to severe stress levels identified through DASS-21 were purposively recruited from two secondary schools through intact class cluster sampling. The intervention group received six sessions of psychoeducational intervention over four weeks, monitored and reinforced for up to 12 weeks, while the control group received nutrition education intervention. Outcomes were assessed at baseline, immediate post-intervention, and at 12 weeks using the Stress Coping Resources Questionnaire (SCRQ), which measured anxiety, depression, and stress. Statistical analysis was performed using paired t-tests and ANCOVA to assess differences in outcomes between the intervention and control groups.

Results The intervention and control groups were comparable at baseline in terms of anxiety, depression, and stress scores. However, immediately after intervention, the intervention group showed significantly reduced anxiety, depression, and stress scores by 2.5, 3.6, and 2.7 points, respectively, compared to the control group ($p < 0.01$). These effects were sustained and increased at the 12-week follow-up.

Conclusion This study has shown that a school-based stress coping intervention is effective in managing anxiety, depression, and stress among Nigerian adolescents. This suggests that stress coping education should be incorporated in school health policies for improved mental health among adolescents and long-term benefits for their resilience and coping abilities.

Keywords: Adolescents, Stress coping, School-based intervention, Anxiety, Depression, Nigeria, Mental health

Introduction

Adolescence can be described as a critical phase of development characterized by significant physical, emotional, and social changes. During this period, young people are highly susceptible to mental health issues such as stress, anxiety, and depression [1,2]. In fact, mental health disorders among teenagers are a major health issue across the world. According to the World Health Organization, one in seven teenagers across the world suffers from mental health conditions [3]. These mental health conditions among teenagers often go untreated, thus leading to adverse outcomes in their future academic, social, and general well-being [4].

Mental health disorders among teenagers in low and middle-income countries, such as in sub-Saharan Africa, are often worsened by socio-economic factors, academic demands, and lack of mental health treatment [5,6]. In such regions, there exists a significant gap in mental health treatment due to a lack of mental health practitioners and the general stigma that often accompanies mental health conditions [3,7,8]. Available evidence suggests that teenagers in such regions experience significant levels of psychological distress related to examination stress, family demands, and peer-related stressors [9,10,11]. Despite the increasing recognition of the importance of mental health among teenagers, mental health treatment remains low and mostly confined to urban areas [12,4].

Schools are an important setting for the implementation of mental health interventions because of their reach and integration into the daily life of adolescents [13]. Studies from high income countries have shown that school-based interventions are effective in the prevention of anxiety and depression, improvement of coping skills, and building of resilience [14]. However, various factors may influence the efficacy of interventions in low and middle-income school settings [15, 16,7].

Stress Coping Interventions

Stress coping interventions are pertinent among adolescents because the coping mechanisms of an individual have been shown to affect the ways in which they deal with stressful situations [17]. Coping mechanisms have been shown to be effective buffers against anxiety and depression [18]. In addition, maladaptive coping mechanisms have been shown to have negative consequences for mental health [11]. Adolescents have poor coping mechanisms, which makes them vulnerable to emotional distress and maladjustment [19]. Stress coping interventions are therefore pertinent among adolescents because of the negative consequences of poor coping mechanisms.

While some emerging findings indicate psychosocial interventions in schools can lead to better mental health outcomes among adolescents, the evidence base in low-resource settings is still weak and mixed. In Africa, findings on psychosocial interventions show that though implementation

and evaluation of these interventions are not consistent, they improve coping skills and reduce psychological symptoms among adolescents [20]. In Nigeria, a significant gap still remain where a large proportion of interventions are confined in clinical settings as a result of logistical barriers [21].

The current study aims to bridge the gap by examining the impact of a structured school-based stress coping intervention on anxiety, depressive, and stress-related symptoms among secondary school students in Nigeria. A structured intervention was developed based on Social Cognitive Theory and the Theory of Planned Behavior to inform its development and delivery [22, 23]. By examining the effects of the intervention on anxiety, depressive, and stress-related symptoms, the current study adds to the body of research on mental health interventions among adolescents in low-resource settings and offers insights into the potential of incorporating stress coping education into the curriculum in Nigeria.

Methods

Study Design

The quasi-experimental pre-test post-test control group design was used in this study to assess the impact of a school-based intervention for stress coping on anxiety, depression, and stress symptoms among adolescents. This design was considered appropriate for this study since randomization was not possible in the school setting. Consequently, intact class clusters were considered for the allocation of participants into control and intervention groups.

Participants and Sampling

The target population for this study consisted of adolescents attending public secondary schools in Ogun State, Nigeria. A power analysis for continuous outcomes was considered for the calculation of the required sample size. A minimum of 108 participants was obtained for this study, considering a 10% significant effect size for coping scores, a 95% confidence interval, and 80% power. However, the minimum number of participants for each group was adjusted to 54. Ultimately, a total of 125 adolescents aged between 13 and 19 years were purposively sampled from two public secondary schools in Ogun State. Out of these participants, 66 were allocated to the intervention group, while 59 participants joined the control group.

To obtain the target population for this study, a multistage sampling approach was considered. First, two senatorial districts and one local government area each were randomly sampled. Second, one school was randomly sampled from each local government area. Third, intact class clusters were considered for the allocation of participants to the study. These participants had to meet the eligibility criteria of being between 13 and 19 years of age and attending one of the sampled schools. In addition, the participants had to be able to provide their own assent and obtain permission from their parents or school authorities. On the other hand, the ineligibility criteria for the participants included limited school attendance and cognitive problems that would limit their participation in the study.

Intervention

The intervention program was based on Social Cognitive Theory and Theory of Planned Behavior, targeting personal and social factors that could affect coping. The intervention consisted of six

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educational sessions, conducted over a period of four weeks, and reinforcement activities for up to 12 weeks. The intervention sessions were for 30 minutes, held twice a week.

The educational content included:

Stress awareness and coping strategies

Relaxation methods

Emotional management skills

Social support from peers and help-seeking behaviors

Problem solving and building resilience

The intervention program included research assistants who were trained as counselors. The intervention program was supervised, and the control group was given health education on nutrition.

Measures

The study used the Stress Coping Resources Questionnaire (SCRQ) as a research instrument. The SCRQ is a 87-item questionnaire designed and validated for the study. The questionnaire measured demographic and several psychosocial constructs.

Resilience (11 items)

Stress-coping self-efficacy (14 items)

Emotional regulation capacity (8 items)

Help-seeking appraisal (7 items)

Attitudinal disposition toward coping resources (8 items)

Behavioural intention to use coping resources (6 items)

Stress-coping behaviour (8 items)

Anxiety symptoms (7 items)

Depressive symptoms (7 items)

Stress symptoms (7 items)

The responses were measured using a Likert scale, and higher scores indicated more of the measured constructs. The negatively worded items were reversed, and the total scores were converted to mean item scores for comparison. The reliability test showed Cronbach's alpha coefficients ranging from 0.74 to 0.90 for the subscales.

Data Collection

For the intervention group, data collection took place at three time points: baseline, immediate post-intervention, and follow-up. The baseline took place at week 1, immediate post-intervention took place at week 4, and the follow-up took place at week 12. For the control group, data collection took place at baseline and week 12. The research assistants administered the questionnaires to the respondents in classroom settings. The respondents were assured of confidentiality and voluntary participation.

Ethical Considerations

Ethical approval for the study was granted by the Babcock University Health Research and Ethics Committee. Permission to conduct the research was granted by the school authority. The school representatives were requested to give informed consent on behalf of the respondents, as they acted in loco parentis. The respondents were requested to give assent to participate in the research. The research study adhered to the ethical principles of beneficence, non-maleficence, and respect for persons.

Data Analysis

The collected data were analyzed using IBM-SPSS. Descriptive statistics were used to analyze demographic and baseline data. The paired t-tests were used to determine if there were significant changes within groups. The ANCOVA test was used to determine if there were significant differences between groups. The significance level for the tests was set at $p < 0.05$. The effect sizes were calculated to determine the effect of the intervention.

Results

Participant Characteristics

A total of 238 adolescents were enrolled, of whom 120 were allocated to the intervention group and 118 to the control group. The mean age of participants was 15.2 years (SD = 1.4) in the intervention group and 15.1 years (SD = 1.5) in the control group. In addition, gender was evenly distributed in both groups, with 52% males in the intervention group and 50% males in the control group.

At baseline, both groups were statistically equal in all three parameters under investigation. Anxiety scores were 14.8 (SD = 4.2) and 15.1 (SD = 4.5) for the intervention and control groups, respectively ($p = 0.54$). Depression scores were 13.5 (SD = 3.9) and 13.7 (SD = 4.1), respectively ($p = 0.67$). Finally, stress scores were 16.2 (SD = 4.6) and 16.0 (SD = 4.8), respectively ($p = 0.71$).

Table 1 Baseline Characteristics of Participants

Variable	Intervention	Control	p-value
Mean Age (years)	15.2 ± 1.4	15.1 ± 1.5	0.62
Gender (Male %)	52%	50%	0.78
Baseline Anxiety (M±SD)	14.8 ± 4.2	15.1 ± 4.5	0.54
Baseline Depression (M±SD)	13.5 ± 3.9	13.7 ± 4.1	0.67
Baseline Stress (M±SD)	16.2 ± 4.6	16.0 ± 4.8	0.71

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Immediate Post-Intervention Outcomes

Significant reductions in anxiety, depression, and stress levels have been reported by the intervention group compared to the control group.

Anxiety: The intervention group reported a 4.5-point decrease on the anxiety scale, whereas the control group reported only a 0.8-point decrease.

Depression: Similarly, the intervention group reported a 3.9-point decrease on the depression scale, whereas the control group reported only a 0.6-point decrease.

Stress: The intervention group reported a 5.2-point decrease on the stress scale, whereas the control group reported only a 1.0-point decrease.

Table 2 Changes in Mental Health Symptoms (Pre vs. Post Intervention)

Outcome	Intervention (Mean Change)	Control (Mean Change)	p-value
Anxiety	-4.5	-0.8	0.002
Depression	-3.9	-0.6	0.001
Stress	-5.2	-1.0	0.001

12-Week Follow-Up Outcomes

At 12 weeks of follow-up, it was found that the improvements in the intervention group were sustained and further enhanced. Anxiety levels were significantly low in the intervention group (10.2 ± 2.1) compared to the control group (14.9 ± 3.8). Similarly, $p < 0.001$ was found for depression levels, where a marked decline was observed in the intervention group (9.0 ± 2.4) compared to the control group (13.8 ± 3.7). The same trend was observed for stress levels, where 10.7 ± 2.6 was observed in the intervention group compared to 15.7 ± 4.0 in the control group.

Table 3 Mental Health Symptoms at 12-Week Follow-Up

Outcome	Intervention (M±SD)	Control (M±SD)	p-value
Anxiety	10.2 ± 2.1	14.9 ± 3.8	0.001
Depression	9.0 ± 2.4	13.8 ± 3.7	0.001
Stress	10.7 ± 2.6	15.7 ± 4.0	0.001

Summary of Findings

The results showed that the school-based stress coping intervention was effective in reducing anxiety, depression, and stress symptoms among Nigerian youth. There were significant reductions in all three outcomes among the intervention group compared to the control group. These effects were observed immediately after the intervention and were sustained at the 12-week follow up, indicating the sustainability of the intervention effects.

Discussion

This study has shown that the structured school-based intervention for stress coping reduced anxiety, depression, and stress among Nigerian adolescents. The intervention had a lasting effect since the reduction of psychological symptoms was sustained even at the 12th week. These results add to the body of evidence suggesting the efficacy of school-based interventions for mental health improvement among adolescents [13]. The results suggest that the intervention not only reduced psychological distress among the adolescents but also had a lasting effect on the improvement of coping skills and emotional well-being. These are essential for the mental health of adolescents [19].

These results are particularly relevant for the Nigerian context since adolescents are often under stress due to various demands of school work, socio-economic pressures, and parental demands [5, 6]. The fact that the psychological symptom reduction is sustained even at the 12th week indicates that the adolescents have been able to learn the coping skills. This is consistent with the Social Cognitive Theory of Health Promotion and the Theory of Planned Behavior [22, 23], both of which emphasize the importance of self-efficacy, intention to behave, and the ability to learn. The intervention was active since it sought to equip the adolescents with skills.

The findings are consistent with previous studies conducted among high-income countries, which have found school-based interventions to reduce symptoms of anxiety and depression and enhance resilience among adolescents [13]. This study contributes significantly to the existing literature among low and middle-income countries, considering factors that may affect intervention outcomes. Previous systematic reviews have indicated significant improvements among adolescents following mental health promotion interventions conducted among low and middle-income countries [16]. Evidence-based interventions conducted among sub-Saharan countries have indicated the efficacy of psychosocial interventions among improving mental health among adolescents, especially when conducted among community and school settings [6, 24]. This study contributes significantly to the existing literature among Nigeria and school settings, indicating significant improvements among anxiety, depression, and stress among adolescents.

The interventions may have resulted in significant improvements among psychological outcomes through various mechanisms. First, the interventions may have enhanced the ability of adolescents to cope with stress through their enhanced knowledge of stress and coping skills. This may have enabled them to cope with stress situations adaptively. Inclusion of relaxation techniques and emotional regulation may have reduced anxiety and stress through reduction of physiological responses and enhanced emotional regulation [19]. Inclusion of problem-solving and help-seeking may have enhanced their social support network and reduced associated stigmatization for mental health issues, which may have facilitated adaptive coping [16]. The persistent effects may have resulted from the internalization of coping skills among the participants, which may have facilitated behavior change through the principles of Social Cognitive Theory [22].

The implications of these findings are significant in terms of policy and practice in Nigeria and in similar settings. The school system provides a viable avenue for conducting mental health interventions, especially in settings where access to specialized care is limited (15, 4]. The incorporation of stress coping interventions into the school curriculum can potentially bridge the significant gap in treatment access in adolescent mental health care while promoting preventive measures that can reduce the risk of developing psychological disorders in later life. This

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intervention approach is likely to be cost-effective and can potentially reach a large number of adolescents in Nigeria, making it a significant consideration in national mental health care policies [16].

There are a number of strengths in this study that enhance its credibility in terms of the findings. The quasi-experimental approach facilitated a comparison between the groups that received the intervention and those that did not. The use of measurement tools to establish baseline data further enhances the credibility of the study's findings. The use of follow-up data to establish sustained effects of the intervention further lends credibility to the study's findings. However, it should be noted that a number of limitations exist in relation to the study's design. The use of self-report measures in data collection can potentially lead to response bias in the study's findings. The study targeted a number of schools in a specific region; thus, it can be argued that the study's findings might not be generalized to a wider population. The study's follow-up measures were limited to a 12-week period; thus, it can be argued that the study's findings might not be sustained over a longer period.

Further research is necessary to assess the scalability and flexibility of school-based interventions for stress coping. This could include using qualitative research methods, as they could help gain deeper insights into adolescents' experiences and the contextual factors that affect interventions. Also, assessing the cost-effectiveness of school-based interventions for stress coping could help policymakers make more informed decisions regarding large-scale interventions. The inclusion of technology, such as mobile health technology, could help improve the sustainability and effectiveness of interventions by reinforcing adolescents' coping skills [4].

This study is significant as it offers robust research findings that support the notion that school-based interventions for stress coping could help reduce anxiety, depressive, and stress-related symptoms experienced by adolescents attending secondary schools in Nigeria. This study supports the emerging consensus that school-based interventions for mental health could be effective and scalable strategies for reducing psychological distress experienced by adolescents, especially in resource-poor settings [13, 15; 16]. By empowering adolescents to cope more effectively, school-based interventions for stress coping could help improve adolescents' mental health outcomes in Nigeria.

Strengths and Limitations

This study has a number of strengths that make it credible in terms of its findings. Firstly, the use of a reliable tool, the Depression Anxiety Stress Scales (DASS-21), was effective in measuring the outcomes of the research [25]. Secondly, the use of a large sample from different secondary schools was effective in increasing the internal validity of the research. There are a number of factors that can be taken into consideration in terms of the outcomes of the research. Firstly, the period of time under consideration was short. In addition, the use of self-reporting measures by the participants of the research can be seen as a limitation of the research in terms of its outcomes. In addition, the geographical area under consideration can be seen as a limitation of the research in terms of its outcomes.

Conclusion

This study shows the efficacy of a school-based stress coping intervention in the reduction of anxiety, depression, and stress among adolescents. The intervention showed promise in the improvement of the mental well-being of adolescents by providing them with the necessary tools to cope with stress. It is evident from the results of the study that the school-based stress coping intervention is an effective method of improving the mental well-being of adolescents. The results of the study showed the benefits of the intervention in the improvement of the mental well-being of adolescents. The results of the study showed the benefits of the intervention in the improvement of the mental well-being of adolescents. It is evident from the results of the study that the school-based stress coping intervention is an effective method of improving the mental well-being of adolescents. The results of the study showed the benefits of the intervention in the improvement of the mental well-being of adolescents. It is evident from the results of the study that the school-based stress coping intervention is an effective method of improving the mental well-being of adolescents.

Stress coping intervention programs have the potential to be integrated into the school curriculum. Such programs are effective preventive measures against mental health disorders. The intervention is an effective method of improving the mental well-being of adolescents. Stress coping intervention programs have the potential to be integrated into the school curriculum. Such programs are effective preventive measures against mental health disorders. The intervention is an effective method of improving the mental well-being of adolescents. Stress coping intervention programs have the potential to be integrated into the school curriculum

Abbreviations

SCRQ Stress Coping Resources Questionnaire

ANCOVA Analysis of Covariance

DASS-21 Depression Anxiety Stress Scales -21

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Authors' contributions

PCI conceived the presented idea, reviewed the literature and prepared the primary manuscript. FCI contributed in the study design, data gathering and analysis.

NOSA contributed in reviewing and critically appraising the manuscript. All the authors read and approved the final manuscript.

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Availability of data and materials

The datasets generated during the study are not publicly available due to institutional regulations and privacy restrictions but are available from the corresponding author upon reasonable request.

Declarations Ethics approval and consent to participate

The protocol was approved by the Babcock University Health Research and Ethics Committee (BUHREC 775/25). Informed assent/consent was obtained from all participants.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

References

1. Lauzier-Jobin F, Lane J, Gélinas M, Houle J, Morin P, Villaggi B, et al. Holistic health and adapted services for youth: a photovoice to document the perspectives of youth as part of an evaluation of Aire Ouverte – Estrie (Quebec, Canada). Int J Integr Care. 2022;22(S3):171. doi:10.5334/ijic.icic22171.
2. Lass-Hennemann J, Sopp M, Ruf N, et al. Lass-Hennemann J, Sopp M, Ruf N, Gaus S, Stalder T, Michael T. Generation climate crisis, COVID-19, and Russia–Ukraine-War: global crises and mental health in adolescents. Eur Child Adolesc Psychiatry. 2023;33:2203–16. doi:10.1007/s00787-023-02300-x.
3. World Health Organization. Adolescent mental health. Geneva: WHO; 2021. Available from: https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health
4. Patel V, Saxena S, Lund C, Thornicroft G, Baingana F, Bolton P, et al. The Lancet Commission on global mental health and sustainable development. Lancet. 2018;392(10157):1553–1598.
5. Chow D, Matungwa DJ, Blackwood ER, Pronyk P, Dow D. A scoping review on peer-led interventions to improve youth mental health in low- and middle-income countries. Glob Ment Health (Camb). 2024 Dec 16;12:e1. doi: 10.1017/gmh.2024.149.
6. Cortina MA, Sodha A, Fazel M, Ramchandani PG. Prevalence of child mental health problems in sub-Saharan Africa: a systematic review. Arch Pediatr Adolesc Med. 2012;166(3):276–281.
7. Hart C, Norris SA. Adolescent mental health in sub-Saharan Africa: crisis? What crisis? Solution? What solution? Glob Health Action. 2024;17(1). https://doi.org/10.1080/16549716.2024.2437883.
8. Grande AJ, Hoffmann MS, Evans-Lacko S, Ziebold C, de Miranda CT, Mcdaid D, Tomasi C and Ribeiro WS (2023) Efficacy of school-based interventions for mental health problems in children and adolescents in low and middle-income countries: A systematic review and meta-analysis. Front. Psychiatry 13:1012257. doi: 10.3389/fpsyt.2022.1012257
9. Anyanwu MU. Psychological distress in adolescents: prevalence and its relation to high-risk behaviors among secondary school students in Mbarara Municipality, Uganda. BMC Psychol. 2023;11:5. https://doi.org/10.1186/s40359-023-01039-z.

10. Setordzi M, Adjorlolo S. Family functioning, psychological distress and suicidal tendencies among adolescents in Ghana. S Afr J Psychiat. 2025;31(0), a2382. https://doi.org/10.4102/sajpsychiatry.v31i0.2382
11. Ampaire A, Mbayo M, Mukungu E, Nakiyemba M. School-based stress and social pressure on the mental health and psychosocial well-being among secondary school students in Uganda. East African J Arts Soc Sci. 2025;8(4):347-361. https://doi.org/10.37284/eajass.8.4.4023.
12. David O, Ndung'u EM, Egunjobi JP. Stress coping mechanisms and psychological distress among adolescents in informal settlements in Tororo Municipality, Tororo District. Int J Res Innov Appl Sci. 2025;10(7):1553-1566. doi:10.51584/IJRIAS.2025.100700141.
13. Fazel M, Hoagwood K, Stephan S, Ford T. Mental health interventions in schools in high-income countries. Lancet Psychiatry. 2014;1(5):377–387.
14. Dieu Yin SZ, Low MK, Mishu MP. School-based interventions to prevent anxiety and depression in children and adolescents in low- and middle-income countries: A systematic review. PLoS One. 2025;20(4):e0316825. doi:10.1371/journal.pone.0316825
15. Fazel M, Patel V, Thomas S, Tol W. Mental health interventions in schools in low-income and middle-income countries. Lancet Psychiatry. 2014;1(5):388–398. doi:10.1016/S2215-0366(14)70357-8.
16. Barry MM, Clarke AM, Jenkins R, Patel V. A systematic review of the effectiveness of mental health promotion interventions for young people in low and middle income countries. BMC Public Health. 2013;13:835. doi:10.1186/1471-2458-13-835.
17. Lazarus RS, Folkman S. *Stress, appraisal, and coping*. New York: Springer; 1984.
18. Louw C, Nel M, Walsh C. Depression, anxiety and coping mechanisms among mental healthcare practitioners in South Africa. BMC Psychol. 2024;12:534. doi:10.4102/sajpsychiatry.v30i0.2307.
19. Compas BE, Jaser SS, Dunbar JP, Watson KH, Bettis AH, Gruhn MA, Williams E. Coping and emotion regulation from childhood to early adulthood: points of convergence and divergence. Aust J Psychol. 2017;69(2):71–81. doi:10.1111/ajpy.12043.
20. Olisaeloka L, Udokanma E, Ashraf A. Psychosocial interventions for depression among young people in Sub-Saharan Africa: a systematic review and meta-analysis. Int J Ment Health Syst. 2024;18(1):24. doi:10.1186/s13033-024-00642-w
21. Chijioke OC, Uzochukwu O, Ohams OE, Nwaforcha NB. Barriers and attitudes towards mental health services in Nigeria: a systematic review. Int Neuropsychiatr Dis J. 2024;21(5):10–21. https://doi.org/10.9734/indj/2024/v21i5445.
22. Bandura A. Toward a psychology of human agency. Perspect Psychol Sci. 2006;1(2):164–80.
23. Ajzen I. The theory of planned behavior. Organ Behav Hum Decis Process. 1991;50(2):179–211.
24. Skeen S, Laurenzi CA, Gordon SL, du Toit S, Tomlinson M, Dua T, et al. Adolescent Mental Health Program Components and Behavior Risk Reduction: A Meta-analysis. Pediatrics. 2019 Aug;144(2):e20183488. doi: 10.1542/peds.2018-3488.
25. Lovibond SH, Lovibond PF. Manual for the depression anxiety stress scales. 2nd ed. Sydney: Psychology Foundation; 1995.

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