



SCHOOL-BASED PREVENTION PROGRAM FOR ANXIETY AND DEPRESSION: A SYSTEMATIC REVIEW

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Abstract:

Objectives: The purpose of the current systematic review is to identify and evaluate the effectiveness of school-based programs aimed at diminishing mental health problems of adolescents.

Methods: The following systematic review includes researches and systematic analysis carried out between (2011-2022).

Results: The following systematic review includes researches and systematic analysis conducted between (2011-2022). The results are separated by two outcome variables: anxiety, and depression/depressive symptoms. A total of 10 studies were included in the meta-analyses, with a total of 1000 adolescent participants.

Conclusion: The current systematic review investigated the effectiveness of these interventions on anxiety and depressive symptoms in adolescents.

Keywords: Anxiety, Depression, Stress, school-based preventions and systematic Review

Introduction

The crucial time period in which mental disorders emerge is adolescence, which eventually poses a higher risk of chronic mental illnesses to adolescents in the future (Weissman et al., 1999; Barrett

and Turner, 2001). Depression is a major mental health problem and has a higher prevalence. (Rushton et al., 2002; O’Kearney et al., 2009). Depression and anxiety often began at the time of adolescence (Paus et al. 2008). Current statistics suggest that 31 percent adolescents are suffering with an anxiety disorder (Merikangas et al. 2010) and 31.5% have had depressive symptoms (Center for Disease Co).

Most common disorders that occur during adolescence are anxiety and depression (Kessler et al., 2001; Lester et al., 2023; Roza et al., 2003). They impair their current daily life functioning and pose a threat for developing recurrent depression and anxiety disorders in later stages of life (Copeland et al., 2014). Due to these reasons, several prevention programs are organized to mitigate the occurrence anxiety and depressive thoughts among young individuals. These programs address populations that have certain risk factors for depression and anxiety, such as low socioeconomic status and depression and experiencing stressful life events during adolescence (Auerbach et al., 2012). These school-based programs targeted not only those individuals who already have symptoms but also who were at risk of developing them and universally, in order to avoid stigmatization.

Traditionally, psychological research & practice emphasis on treating mental disorders while being ignorant regarding the aspects of positive functioning (Chakhssi et al. 2018). Adolescence is a critical stage because the individual transitions biologically and psychologically (Burger and Samuel 2017), where good mental health is considered as the combination of few symptoms of mental illness and maximum levels of well-being (Keyes 2009; World Health Organization 2004). During period of adolescence, intervention and prevention is required which is why these intervention programs provided for schools is an impressive way of promoting positive functioning (Freire et al. 2018). Therefore, positive psychological interventions were introduced as interventions based on scientific studies that make use of daily routine activities to enhance positive thoughts, behaviors and emotions (Schotanus-Dijkstra et al. 2015; Ullah et al., 2022), and have proved to be useful in ensuring overall well-being and lowering distress in the school going individuals (Jadoon et al., 2022; Waters 2011). Thus, the present study aims to examine whether school-based psychological interventions particularly cognitive interventions can prevent depression, anxiety or reduce their symptoms among adolescents by conducting a systematic and thorough review of the current literature.

Although various treatments do exist for occurrence of negative depressive thoughts and anxiety related problems in young individuals (Tindall et al., 2017; Weersing, Jeffreys, Do, Schwartz, & Bolano, 2017) however, these evidence-based treatments are not accessible to young individuals, even among countries with higher per capita income (Mental Health & Wellbeing Taskforce for Children & Young People, 2015;). A small amount of young people going through mental health issues search for assistance (Gulliver, Griffiths, & Christensen, 2010) because of stigmatization, less communication with health services and little mental and psychological health information (Khan et al., 2022; Plaistow et al., 2013; Langer et al., 2015; Reardon et al., 2017).

Although evidence-based interventions are used for adolescents, many reviews conducted (e.g. Weare & Nind, 2011) concluded that these intervention focus more on prevention rather than the treatment of the symptoms. Interventions that are giving to young individuals who are at a risk of developing depression or anxiety are observed to be more effective than universal interventions existing for depression only. In case of anxiety, the former is not true (Seidler -Werner et al., 2017).

Materials & Methods

Literature Search Strategy

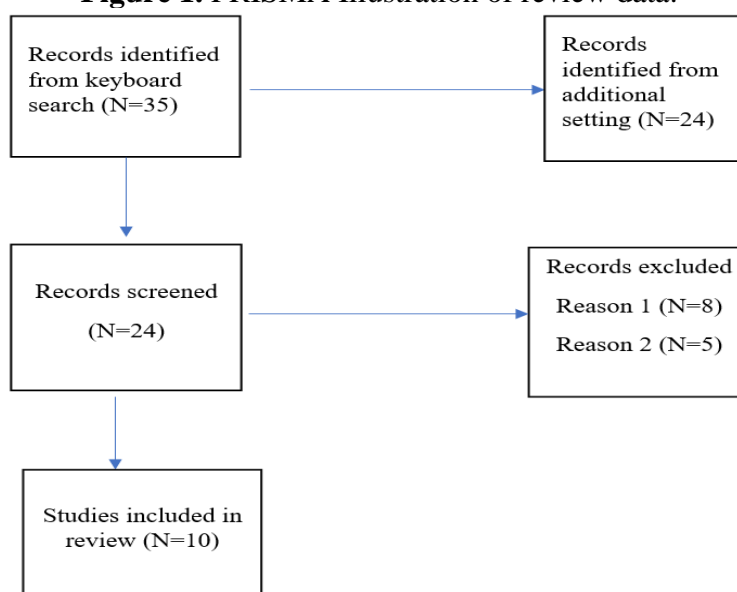
We undertook articles that emphasized on the “Prevention programs which were school based related to Depression & anxiety among young people”. We also included studies that focused specifically on anxiety or depression alone. Depression and anxiety based research is included, for example in school going children and it is notified about the higher risk of anxiety and depression. The intervention provided in these studies for depression and anxiety was cognitive behavior therapy.

Similarly, general preventions and trials are also included in the systematic review. The method that was adopted to screen the interventions was based on the established guidelines for conducting systematic review research.

Search Strategy

The research literature was collected from the last 10 years(2012- 2022). The articles included randomized clinical trials, quasi experimental design and previously conducted systematic reviews. Following databases were used to screen out these articles: Google Scholar, PsycARTICLES, and science direct. The search terms that were used to screen the articles were: *depression and anxiety intervention programs in school*; '*depression and anxiety prevention programs in school*'.

Figure 1. PRISMA Illustration of review data:



Inclusion Criteria

The inclusion criteria were specifically focused on screening the anxiety and depression prevention programs in schools for children and adolescents. Prevention programs (school-based) for depressive thoughts and anxiety disorders focused on the last 10 years only (2011-2022). Any researches about school-based prevention programs that had other variables along with depression and anxiety were excluded. Other research articles that mentioned certain interventions for preventing anxiety and depression were also listed. Only English language articles were included in this systematic review study. Only published articles were used as evidence. No unpublished form of literature was used to support the claim.

In the present review we identified number of specific papers that satisfied the inclusion criteria. Among these, five research papers cited longer-term outcomes of previously included trials while two of which mentioned further secondary analyses. The other two reported immediate effects of the prevention programs on individuals.

Results

The included studies for the systematic meta-analysis were focused on the “prevention programs (school-based) for anxiety & depression among young people”. Out of the 7 studies, one focused on both depression and anxiety prevention programs while the other two focused on either depression or anxiety and one of them emphasis on optimism and anxiety. The systematic review of (n=10) prevention programs showed that these intervention consisting programs effectively reduce symptoms of anxiety and depression after immediate implementation but do not have any long-term effects.

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Study	Design	Setting	Sample size Sample and demographics	Type of Intervention	Depression/ anxiety	Results	Limitation	Conclusion
Gaffar.et al, (2019)	Randomized control trial	School setting	N= 461	CBT and behavior therapy	anxiety	The intervention was able to reduce anxiety successfully. However, it had no effect on the secondary variables, self-esteem and worry.	Not mentioned	Since this anxiety prevention program successfully reduces anxiety, it should be incorporated into school curriculums so that psychological help is accessible to children.
Raising. et al, (2017)	Systematic analysis	School setting	32 articles on adolescents on a high risk of developing depression and anxiety	Cognitive behavioral Therapy	Depression and anxiety	Small improvement in symptoms immediately after the intervention but no effect after 3-6 months or 12 months of follow up	Not mentioned	CBT based interventions are effective for adolescents at high risk of developing depression or anxiety but for short term only.
Gravy.et al, (2017)	Quasi experimental design	School setting	N= 948	School based cognitive behavioral prevention program, DISA(Depression in Swedish adolescents)	Depression	The control group exhibited lesser depressive symptoms and better self- rated health.	Quasi design is weaker in evidence than RCT. Intervention group included mostly girls. Drop-out rate from the experiment was high.	Although the experimental design comes with its limitations, DISA is an effective program for preventing depression among adolescents
King.et al, (2019)	Single-arm, pre-post, 6-week uncontrolled pilot trial	School setting	N= 59	development and implementation of an online mental health service	Depression and Anxiety	Mean scores for help-seeking, depression, and anxiety remained relatively stable/ improved.	Not mentioned	It is feasible , safe up to some extend however, certain improvements are needed.
Wong.et al, (2014)	Randomized controlled trial	School setting	N= 976	Cognitive Behavioral Therapy	Depression and Anxiety	Student who received interventions demonstrated reductions in symptoms of depression and anxiety when compared to the control group.	Loss of post-intervention data.	These findings are preliminary and need to be replicated in future researches.
Tejada et al	Systematic analysis	School setting	N= 976	Positive psychology and anxiety-based interventions	Anxiety and optimism	Adolescents who seek intervention have better understanding of coping anxiety and to be more optimistic	Not mentioned	This article reduces the effects of anxiety and enhance optimism
Cadwell et al (2019)	a systematic review and network meta-analysis Randomised and quasi-randomised controlled trials were eligible	School-based interventions	N=603	:(CBT), behavioral third-wave, interpersonal, physical interventions were classified as exercise, relaxation, or mindfulness and relaxation,	Depression and anxiety	Interventions were found effective for the prevention of anxiety and depression in children and young people.	Analysis was not conducted properly	CBT along with physical interventions are more useful in preventing depression and anxiety symptoms.
Taylor.et al, (2014)	Randomized controlled trial	School setting	N= 976	Cognitive Behavioral Therapy (FRIENDS)	Anxiety	Student who received the intervention had lower level of anxiety	Not mentioned	This intervention is useful if put under everyday use.
Chen et al, (2018)	Meta analysis	School setting	N= 5970	Cognitive Behavioral Therapy (FRIENDS)	Depression and Anxiety	Therapy was effective for reducing depression but had little effect over anxiety	Not all interventions were designed to measure both depression and anxiety	Further interventions should be designed for anxiety
Martinsen et al, (2019)	Randomized controlled trial	School setting	N=1686	Emotion coping	Depression and Anxiety	Significant reduction in depression and anxiety symptoms	Not mentioned	The emotion program can be useful in preventing depression and anxiety among youth population.

Discussion:

The present study investigated the effects of anxiety and depression programs (school based) in order to address the existing gap. Some of these studies were randomized control trials in a school setting, some of these were systematic analysis conducted previously and a few of these researches were quasi experimental studies. Results concluded that psychology interventions were able to reduced depression and anxiety along with associated symptoms which overall led to the adolescent's subjective and psychological well-being. Since the interventions were seen to produce both short-term and long-term mental health benefits for adolescents. The policy making personnel for the education system and practitioners should ensure the fair implementation and integration of these interventions within the schools' curriculum coupled with other interventions from positive psychology. This would actually empower the adolescent with effective tools to combat with their mental health problems.

Findings from other studies showed that when the application of the intervention started around the schools, it was initially effective in reducing depression and anxiety of the students. The students had learned better coping strategies to deal with their anxiety and depression. The previously conducted systematic analysis mentioned here also confirmed the effectiveness of the interventions for anxiety & depression for young individuals.

The following systematic review included 3 other reviews carried out previously. One of the systematic reviews focused on anxiety while the others focused on both depression and anxiety. These reviews also concluded that these programs do help in reducing depression and anxiety symptoms especially if they are used for longer periods and inculcated into our daily activities.

The interventions provided in all of the mentioned studies in our review were techniques taken from cognitive behavior therapy. Indeed, cognitive behavior therapy is backed up by strong empirical evidence for treating depression and anxiety disorders. One study mentioned in our review combined the cognitive behavior therapy with physical interventions and mindfulness related interventions.

There were also several limitations of this review. Firstly, the researches included in this review included had used self-reported questionnaires. This can cause recall bias and reporting bias. Therefore, in future researches, observations by teachers should also be taken into account. Secondly, some of the studies in this review included children attending government primary schools in rural areas and did not represent children from urban areas. Some researches only focused on children with specific ethnic or racial backgrounds, which question's its generalizability. In one study the participants left in between the application of intervention and the post intervention data was lost. Also, some of the intervention programs were effective for a short-term period only and their effectiveness reduced in the long run or when the application of the intervention was discontinued. Overall, we may not be able to apply the findings of this study on the general population.

Conclusions

Current systematic review has found important findings about the effectiveness of these depression and prevention programs for anxiety related issues targeting primary school children within the school setting. These school-based programs showed promising results by reducing depression and anxiety symptoms especially if their implementation is ensured for a longer period of time. Therefore, it is necessary that schools integrate these programs as a mandatory part of their curriculum in order to ensure better mental health among our youth population.

References

1. Auerbach, R. P., Richardt, S., Kertz, S., and Eberhart, N. K. (2012). *Cognitive vulnerability, stress generation, and anxiety: symptom clusters and gender differences*. *Int. J. Cogn. Ther.* 5, 50–66. doi: 10.1521/ijct.2012.5.1.50
2. Caldwell, D. M., Davies, S. R., Hetrick, S. E., Palmer, J. C., Caro, P., López-López, J. A., Gunnell, D., Kidger, J., Thomas, J., French, C., Stockings, E., Campbell, R., & Welton,

- N. J. (2019). School-based interventions to prevent anxiety and depression in children and young people: a systematic review and network meta-analysis. *The Lancet Psychiatry*, 6(12), 1011-1020. [https://doi.org/https://doi.org/10.1016/S2215-0366\(19\)30403-1](https://doi.org/https://doi.org/10.1016/S2215-0366(19)30403-1)
3. Copeland, W. E., Angold, A., Shanahan, L., and Costello, E. J. (2014). *Longitudinal patterns of anxiety from childhood to adulthood: the great smoky mountains study*. *J. Am. Acad. Child Adolesc. Psychiatry* 53, 21–33. doi: 10.1016/j.jaac.2013.09.017
 4. Feiss, R., Dolinger, S. B., Merritt, M., Reiche, E., Martin, K., Yanes, J. A., Thomas, C. M., & Pangelinan, M. (2019). A Systematic Review and Meta-Analysis of School-Based Stress, Anxiety, and Depression Prevention Programs for Adolescents. *Journal of youth and adolescence*, 48(9), 1668–1685. <https://doi.org/10.1007/s10964-019-01085-0>
 5. Garmy P. , Clausson K. E. , Berg A., Carlsson S. K. , Jakobsson U. (2017)*Evaluation of a School- based cognitive- behavioral depression prevention program*; *Scandinavian journal of public health*, 2019; 47: 182-189
 6. Ghaffar A. F.S. , Sidik M. S. , Ibrahim N., Awang H. , Rampal G. R. L. ,*Effect of a School-Based Anxiety Prevention Program among Primary School Children*; *Int. J. Environ. Res. Public Health* 2019, 16, 4913; doi:10.3390/ijerph16244913
 7. Lester, B. M., Vicshell I. V.L., Ortiz, Sian. V.R.D., & Robles. D.V. (2023). Effects of Home Environment to the Academic Performance of the Grade 10 Students At Sto. Nino National High School, Cagayan, Philippines. *International Journal of Contemporary Issues in Social Sciences*, 2(1), 31-44.
 8. Mwemezi, P. (2023). Decentralization in Delivering Public Social Services: A Critical Review in Secondary Education In Tanzania. *International Journal of Contemporary Issues in Social Sciences*, 2(1),1-8.
 9. Stallard P. (2013). School-based interventions for depression and anxiety in children and adolescents. *Evidence-based mental health*, 16(3), 60–61. <https://doi.org/10.1136/eb-2013-101242>
 10. Kessler, R. C., Avenevoli, S., and Merikangas, K. R. (2001). *Mood disorders in children and adolescents: an epidemiologic perspective*. *Biol. Psychiatry* 49, 1002–1014. doi: 10.1016/S0006-3223(01)01129-5
 11. Khan, F., Saadat. R.U., Yousaf. S., Fatima.I, Noreen.N. (2022). Child Protection Practices and its Implementation at Elementary School Level. *International Journal of Contemporary Issues in Social Sciences*, 1(2), 1-5.
 12. Rasing S.P.A, Creemers D.H.M, Janssens J.M.A.M. and Scholte R.H.J. (2017) *Depression and Anxiety Prevention Based on Cognitive Behavioral Therapy for At-Risk Adolescents: A Meta-Analytic Review*. *Front. Psychol.* 8:1066. doi: 10.3389/fpsyg.2017.01066
 13. Tejada-Gallardo, C., Blasco-Belled, A., Torrelles-Nadal, C., & Alsinet, C. (2020). Effects of School-based Multicomponent Positive Psychology Interventions on Well-being and Distress in Adolescents: A Systematic Review and Meta-analysis. *Journal of Youth and Adolescence*, 49(10), 1943-1960. <https://doi.org/10.1007/s10964-020-01289-9>
 14. Ullah, M., Alam, W., Khan, Y., Joseph, V., Farooq, M.S., Noreen, S. (2022). Role of Leadership in Enhancing Employees Performance: A Case Of Board of Intermediate and Secondary Education, Peshawar. *Journal of Contemporary Issues in Business and Government*, 28(1), 183-193.
 15. Werner-Seidler, A., Spanos, S., Calear, A. L., Perry, Y., Torok, M., O'Dea, B., Christensen, H., & Newby, J. M. (2021). School-based depression and anxiety prevention programs: An updated systematic review and meta-analysis. *Clinical Psychology Review*, 89, 102079. <https://doi.org/https://doi.org/10.1016/j.cpr.2021.102079>