

The effectiveness of cognitive behavioral therapy in intervening with non-suicidal self-injury and suicidal ideation in adolescents: A Meta analysis

INPLASY2024120024
doi: 10.37766/inplasy2024.12.0024
Received: 6 December 2024
Published: 6 December 2024

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2024120024

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 6 December 2024 and was last updated on 6 December 2024.

INTRODUCTION

Review question / Objective The aim of this study was to evaluate the effect of cognitive behavioral therapy on non-suicidal suicide and suicidal ideation in adolescents through meta-analysis.

Condition being studied Adolescent suicide is a serious public health problem worldwide, with serious consequences such as injury, disability, family distress, and depletion of social resources. Non-suicidal self-injury and suicidal ideation are closely related to suicide, so it is of great significance to intervene in them. At present, the main psychological intervention methods for adolescents with non-suicidal self-injury include cognitive behavior therapy, dialectical behavior therapy, family therapy and group counseling therapy. Among them, cognitive behavioral therapy is a group of short-term psychological treatment methods to change bad cognition and eliminate negative emotions and behaviors by changing thinking and behavior. It has been widely used and

is one of the most influential psychological counseling and psychological treatment methods. Some research results show that cognitive behavioral therapy has a positive effect on non-suicidal self-injury and suicidal ideation in adolescents. However, due to certain heterogeneity among various studies, the results cannot be directly combined, and the evidence-based evidence is insufficient, and the relevant theoretical system needs to be improved. So we conducted a meta-analysis to explore the intervention effect of cognitive behavioral therapy on non-suicidal self-injury and suicidal ideation in adolescents.

METHODS

Participant or population Adolescents who meet the diagnostic criteria for non-suicidal self-injury in the Diagnostic and Statistical Manual of Mental Disorders (5th Edition) or have high suicidal ideation scores.

Intervention The experimental group was treated with cognitive behavioral therapy.

Comparator The control group was treated with routine nursing intervention.

Study designs to be included RCT.

Eligibility criteria Study type: randomized controlled clinical studies (RCTs) published at home and abroad on the application of cognitive behavioral therapy to non-suicidal self-injury and suicidal ideation in adolescents; Outcome indicators: anxiety score, depression score and other indicators reflecting the effect of intervention.

Information sources PubMed、Embase、Cochrane Library、PsycINFO、Web of Science、CNKI、CBM、VIP、Wanfang Data.

Main outcome(s) anxiety score, depression score and other indicators reflecting the effect of intervention.

Quality assessment / Risk of bias analysis Two researchers independently assessed the risk of bias (ROB), in accordance with the Cochrane Handbook version 5.1.0 tool for assessing ROB in RCTs.

Strategy of data synthesis Revman 5.4 statistical software was used for data analysis. The outcome indicators of this study were bicategorical variable data and continuous variable data. Risk ratio (RR) and 95% confidence interval (95%CI) were used as effect sizes for bicategorical variables, and their statistics were analyzed. Mean difference (MD) and 95%CI were used for continuity variables. For the continuous data described by median and interquartile interval in the research report, the test level was set at $\alpha=0.05$, and the heterogeneity of each study was quantitatively determined. The value of I^2 ranged from 0 to 100%, and the greater the value of I^2 , the greater the heterogeneity; when the value of I^2 was $<50\%$, the low degree of heterogeneity existed among the studies and could be ignored. When I^2 values ranged from 50% to 75%, there was moderate heterogeneity among studies. When I^2 values ranged from 75% to 100%, there was significant heterogeneity among studies. In this study, when I^2 is less than 50%, the fixed effects model is used to calculate the combined statistics; otherwise, sensitivity analysis and meta-regression are used to find the causes of heterogeneity, and subgroup and random effects models are used for analysis.

Subgroup analysis Significant heterogeneity will further explore subgroup analysis, which first considers the following factors: duration and frequency of continuing behavioral therapy interventions. If there are enough such studies, subgroup analysis will be planned.

Sensitivity analysis The sensitivity analysis was performed by using Revman software to reflect the sensitivity of the article through the change of effect size after deleting one of the articles. In the case of greater heterogeneity, we will proceed with the systematic synthesis method.

Country(ies) involved China.

Keywords cognitive behavioral therapy; adolescent; non-suicidal self-injury; suicidal ideation.

Contributions of each author

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