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INPLASY

BCEs and mental health outcomes in college students: A meta-analysis

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ADMINISTRATIVE INFORMATION

Support - No support.

Review stage at the time of initial registration - Piloting of the study selection process.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 26 November 2026 and was last updated on 26 November 2026.

INTRODUCTION

Study aim The current meta-analysis aims to synthesize empirical studies examining the association between benevolent childhood experiences (BCEs) and positive and negative mental health indicators in college students, providing evidence on the overall strength of the associations between these variables in this population. This approach will allow us to identify the mental health outcomes most strongly related to positive childhood experiences.

Background Early life experiences have consistently been shown to influence developmental outcomes later in life. Experiences of child abuse and neglect are associated with mental health problems in adulthood. Conversely, BCEs, such as effective parenting practices and access to community resources, are linked to positive mental health outcomes in adulthood. Given that mental health is more than the absence of illness, it is important to examine how BCEs relate to both negative and positive indicators of mental health. Research in this area has grown substantially, with studies showing that BCEs are associated with lower levels of anxiety and depression, as well as higher levels of well-being and resilience. These associations are particularly relevant among college students, who face unique developmental and academic demands that may shape their psychological functioning, and for whom mental health difficulties are a significant concern. Moreover, early life experiences may continue to influence students' mental health, suggesting that BCEs may serve as important protective factors. Reflecting the relevance of this population, several studies have examined the links between BCEs and both positive and negative mental health outcomes among college students.

Rationale The magnitude of the associations between BCEs and mental health outcomes varies substantially across studies with college student samples. For example, regarding depression, some

studies report strong correlations, whereas others report relatively weak correlations. Similar variability is found for positive mental health, with correlations between BCEs and resilience ranging from moderate to weak.
Several systematic reviews have synthesized evidence on BCEs and adult outcomes, and recent meta-analyses have examined the association between BCEs and psychopathology in adult samples. However, research in this area has been growing rapidly and, to our knowledge, no meta-analysis has yet evaluated the relationship between BCEs and positive mental health indicators, nor has any focused specifically on college student populations. Therefore, a meta-analysis that examines the relationship between BCEs and both positive and negative mental health indicators is warranted to provide a more accurate estimate of the overall strength of the associations between these variables, and specifically in college student samples.

METHODS

Search strategy Studies examining the association between BCEs and mental health outcomes will be systematically searched across three electronic databases: EBSCO, Scopus and Web of Science. Studies will be identified through the combination of the following keywords: ("benevolent child* experience*" OR BCE* OR "positive child* experience*" OR PCE* OR "advantage* child* experience*" OR counter-ACE*) AND (psychopatholo* OR "mental illness" OR "mental health problem*" OR anxi* OR depressi* OR symptom* OR disorder* OR "well-being" OR wellbeing OR "well being" OR "mental wellness" OR "life satisfaction" OR happiness OR resilien* OR flourishing) AND (undergraduate* OR "college student*" OR student* OR "university student*").

Eligibility criteria Studies will be included if they focus on the association between BCEs and mental health outcomes in college students. Additional inclusion criteria are as follows: (a) empirical quantitative studies using correlational or longitudinal designs; (b) publication in peer-reviewed academic journals; (c) availability in English, Portuguese, or Spanish; and (d) reporting of a correlation coefficient (r) or a statistic that could be converted into r. Studies will be excluded if they: (a) use samples of children or adolescents (<18 years) or (b) lack sufficient statistical data for effect size calculation.

Data extraction The study selection process will follow the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA), comprising four essential steps: identification, screening, eligibility, and inclusion. Titles and abstracts will be screened in the Rayyan QCRI application. Full-text articles will be assessed for eligibility based on the predefined criteria to determine their inclusion in the meta-analysis. A coding sheet will be created and data will be extracted into an excel form. The meta-analyses will be conducted in R software.

Strategy of data synthesis / Statistical analysis Pearson correlation coefficients between BCEs and each positive and negative mental health indicator will be used as effect sizes for the meta-analyses.

Country(ies) involved Portugal.

Keywords Benevolent childhood experiences; Psychopathology; Positive mental health; College students.

Dissemination plans The study will be published in an international, peer-reviewed scientific journal, and the results will be disseminated through active participation in international scientific conferences.

Contributions of each author

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