

# Long-Term Follow-Up Of The Brief Educational Workshops In Secondary Schools Trial (BESST) After 18 Months: An Study Protocol

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## Abstract

**Background:** Depressive disorders and other neuropsychiatric disorders are prevalent among adolescents, leading to significant negative impacts on their mental health and overall well-being. School-based interventions have shown promise in improving mental health outcomes in younger adolescents; however, there is a lack of research on interventions tailored to older adolescents (16+ years). The Brief Educational workshops in Secondary Schools Trial (BESST) aims to investigate the long-term effectiveness of the DISCOVER workshop, a self-referral, school-based program, on depressive symptoms, anxiety, sleep quality, well-being, and resilience in secondary school students aged 16-18 years.

**Methods:** The BESST Trial is a single-blind, two-arm, multi-center, cluster randomized controlled trial (cRCT) comparing the one-day DISCOVER workshop program with usual school provision as a control. Participants could refer themselves to the trial. A sample size of 900 participants from 60 schools was determined based on power calculations and accounting for a dropout rate of 15%. The long-term follow-up study will extend data collection up to 18 months post baseline. Outcome measures include self-report measures of depression, anxiety, well-being, sleep quality, and resilience, collected at baseline, 3 months, 6 months, 12 months, and 18 months post-randomization. An additional qualitative component will be conducted with two groups of participants from the main study cohort: (1) students who demonstrated improvement in depressive symptoms by the end of the 18-month follow-up period (n=10) and (2) students who deteriorated at the end of the long-term follow-up (n=10). The categorization of improvers and deteriorated will be based on the reliable change index in depression symptoms at 18 months post-intervention.

**Results:** The primary aim of the study is to investigate the long-term clinical effectiveness of DISCOVER in reducing depressive symptoms at 12- and 18-months follow-up. Secondary objectives include evaluating its impact on symptoms of anxiety, sleep quality, well-being, and resilience. Additionally, the study seeks to determine if significant differences exist in the proportion meeting criteria for possible depression (MFQ  $\geq$  21) between intervention and control conditions over the 18-month follow-up. It also aims to establish whether DISCOVER leads to a significantly higher rate of clinically meaningful change in depression symptoms during the same period. Exploratory analyses will investigate potential mediating mechanisms and moderating factors influencing treatment outcomes. Qualitative findings are expected to provide insights into the participants' perceptions of their progress, exploring continued use of intervention strategies, identifying additional sources of support contributing to improvement, uncovering stressors that may interfere with progress, and examining lifestyle factors affecting mental health and engagement with prevention strategies.

Conclusions: This research protocol outlines a comprehensive approach to evaluate the long-term effectiveness of the DISCOVER intervention and its potential benefits for secondary school students. The study's findings will have implications for mental health support strategies in educational settings.

**Keywords:** adolescent mental health; depressive disorders; school-based intervention; long-term follow-up; research protocol