# Long-term Efficacy of Psychosocial Treatments for Adults with Attention-Deficit/Hyperactivity Disorder: A Meta-Analytic Review

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## Background:

Recent evidence suggests that psychosocial treatments, particularly cognitive-behavioral therapy (CBT), are effective interventions for adult attention deficit hyperactivity disorder (ADHD). The objective of this review was to determine the long-term efficacy of psychosocial interventions in improving clinically relevant variables, including ADHD core symptoms, clinical global impression (CGI), and global functioning.

#### Methods:

In total, nine randomized controlled trials and three uncontrolled single-group pretest-posttest studies were included. The data from these studies were combined using the inverse variance method. Heterogeneity and risk of bias were assessed. Subgroup analyses and meta-regressions were performed, to determine the influence of different potential moderator variables (risk of bias, medication status, follow-up length, therapy type and setting, and control group type) on effect size (ES) estimates.

## Results:

Up to 680 of a total of 1,073 participants assessed pre-treatment were retained at follow-up. Treatment groups showed greater improvement than control groups in self-reported total ADHD symptoms, inattention and hyperactivity/impulsivity, in addition to CGI and global functioning. Blind assessors also reported a large ES in within-subject outcomes. Studies using dialectical behavioral therapy (DBT) in a group setting, with active control matching, and that were rated as having an unclear risk of bias, achieved significantly lower ES estimates for most outcomes. Treatment effectiveness, according to the CGI measure, and global functioning were significantly increased when the percentage of medicated participants was greater.

## Conclusions:

Our results indicate that the post-treatment gains reported in previous reviews are sustained for at least 12 months. Nevertheless, these results must be interpreted with caution, because of a high level of heterogeneity among studies and the risk of bias observed in the majority of outcomes. Thus, these findings indicate that psychological interventions are a highly valuable and stable clinical tool for the treatment of core symptoms and global functioning in adults with ADHD.