

A meta-analysis of computerized cognitive-behavioral therapy for the treatment of DSM-5 anxiety disorders.

Computerized now means Internet-based.

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OBJECTIVE:

Access to qualified cognitive-behavioral therapy (CBT) remains a major barrier to improving clinical outcomes in anxiety disorders. The current meta-analysis examined the efficacy of computerized CBT (cCBT) for anxiety disorders and the durability of treatment gains during follow-up.

DATA SOURCES:

We searched PubMed and references from included trials and previous meta-analyses in the area.

STUDY SELECTION:

We included randomized controlled trials assessing the efficacy of cCBT for non-OCD and non-PTSD anxiety disorders.

DATA EXTRACTION:

Forty trials involving 2,648 participants were included in this meta-analysis. We used a fixed-effect model to examine standardized mean difference in posttreatment anxiety levels. cCBT was compared to wait-list, in-person CBT, and Internet control. We also examined moderators of cCBT treatment gains over follow-up.

RESULTS:

Meta-analysis indicated that cCBT was significantly more effective than wait-list control in the treatment of anxiety disorders (standardized mean

difference [SMD] = 0.92 [95% CI, 0.83 to 1.02], $k = 31$, $z = 18.8$, $P < .001$). Moderator analyses also found that cCBT targeting specific anxiety disorders had greater efficacy than that targeting mixed anxiety symptoms. The efficacy of cCBT was equivalent to in-person CBT in studies that compared them head-to-head, for both children and adults (SMD = 0.05 [95% CI, -0.09 to 0.19], $k = 15$, $z = 0.7$, $P = .46$). Longitudinal studies indicate that individuals undergoing cCBT tended to continue to improve after completion of treatment, with longer follow-up periods associated with greater symptom reduction.

CONCLUSIONS:

cCBT represents an efficacious intervention for the treatment of anxiety disorders and may circumvent barriers to accessing traditional CBT treatments. Further research is needed to examine the effectiveness of cCBT in real-world settings, for individuals with clinical comorbidities, and in comparison with more ecologically valid comparison conditions.

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