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## Methods of Self-Regulation in Children with Anxiety

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# Methods of Self-Regulation in Children with Anxiety

Jordyn Madden & Maya Lamer

## Background

- Children with anxiety symptoms often present with self-regulation deficits affecting their coping and problem solving performance skills, in turn impacting school performance. Research identifies self-regulation as the ability to manage appropriate behaviors to fully engage in daily occupations.
- Cognitive Behavioral Therapy (CBT) was developed to regulate mental health needs and firmly planted in occupational therapy. OT's utilize CBT as a frame of reference to guide their treatment with clients who have difficulties in occupational performance.
- CBT is a "structured, short-term, present-oriented psychotherapy ..., directed toward solving current problems and modifying dysfunctional (inaccurate and/or unhelpful) thinking and behavior" (Beck, 2011, p. 2).

## 1 Ask: Research Question

Can Cognitive Behavioral Therapy (CBT) implemented by occupational therapists improve self-regulation in children aged 5-12 with anxiety-related behaviors?

## 2a Acquire: Search Terms

**Patient/Client Group:** 5-12 year old children with anxiety-related behaviors

**Intervention (or Assessment):** School-based CBT principles

**Comparison:** Impact of school-based CBT program on self-regulation and occupational performance

**Outcome(s):** coping & problem solving skills, self-perception, and anxiety-related behaviors

## 2b Acquire: Selected Articles

**Chiu et al. (2013):** Stratified randomized controlled trial. Compared the effects of a school-based CBT intervention group (Building Confidence) and a waitlist group with children diagnosed with anxiety-related disorders.

**Collins, Woolfson, & Durkin (2014):** Randomized controlled trial. Investigated the effects of a universal CBT school-based intervention on anxiety and coping skills compared to a comparison group, including a 6-month follow-up.

**Essau et al. (2012):** Randomized controlled trial. Examined the effectiveness of a universal school-based CBT prevention program (FRIENDS) on reducing depressive and anxiety symptoms, and its impact on correlates of anxiety.

## 3a Appraise: Study Quality

**Chiu et al. (2013):** Level II. Small n-size (n=40); randomly assigned to either treatment of CBT (n=22) or 3-month waitlist (n=18). Evaluators blinded. Outcomes assessed at pre-test and post-test. CBT compared with waitlist group, outcome measure focused on assessment of anxiety symptoms and not functional performance.

**Collins et al. (2014):** Level II. n=317; randomly assigned to psychologist-led intervention group (n=103), teacher-led intervention group (n=79), and comparison group (n=135). Coping Strategy Indicator (SCI) and Spence Children's Anxiety Scale (SCAS) were measured pre/post, and are both reliable and valid tools. Intervention operationally defined.

**Essau et al. (2012):** Level II. Significant sample size (n=638); intervention group (n=302); control group (n=336). Used varied dependent variables, which were all reliable and valid tools. Intervention not operationally defined.



(Allied Travel Careers, 2017)

## 3b Appraise: Study Results

**Chiu et al. (2013):** 95% of children in CBT intervention group demonstrated a positive treatment response and were free of any anxiety diagnoses; Clinical Global Impressions (CGI) - Improvement Scale ( $p < 0.001$ ), Parent Multidimensional Anxiety Scale for Children (MASC) ( $p = 0.027$ ; effect size=0.59), and Child MASC ( $p = 0.091$ ; effect size=0.28); effect sizes were small to medium; results revealed a statistically significant difference between CBT and waitlist group.

**Collins et al. (2014):** Post-test scores demonstrated significant differences between intervention groups and comparison group on avoidance ( $p < 0.001$ ), problem solving skills ( $p < 0.001$  and anxiety scores ( $p < 0.001$ )); medium to large effect sizes. Significant movement from at-risk category was found from pre-test to post-test in psychologist-led ( $p < 0.001$ ), teacher-led ( $p = 0.022$ ), but not comparison group ( $p = 0.202$ ). Intervention effects were still in evidence at 6-month follow-up.

**Essau et al. (2012):** At 6- and 12-month follow-ups, the intervention group had significantly higher scores on school performance than the control group (6 month:  $p < .05$ ; 12 month:  $p < .01$ ). The intervention group demonstrated significantly lower depressive symptoms (6 month:  $p < .05$ ; 12 month:  $p < .001$ ) and used less cognitive avoidance problem solving (6 month:  $p < .01$ ; 12 month:  $p < .05$ ) than the control group.

## 4 Apply: Conclusions for Practice

These studies demonstrated how the use of CBT principles reduced participants' anxiety-related behaviors, which could lead to increased participation in the classroom. Occupational therapists could embed CBT principles within a child's daily school routine to help them manage their behaviors and fully engage in school work. Future research could focus on school-based OT services utilizing CBT that target mental health needs.

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A CBT-based intervention is shown to be effective in regulating anxiety-related behaviors demonstrated by children in a school setting.

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