


# Mediators of Change in a Parent Training Program for Early ADHD Difficulties: The Role of Parental Strategies, Parental Self-Efficacy, and Therapeutic Alliance

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## Abstract

**Objective:** The aim was to explore mediators of change in parent training (PT) for 3- to 8-year-old children with ADHD difficulties. **Method:** Parents of 64 children received PT with Incredible Years® and assessed child ADHD symptoms and conduct problems and their parenting strategies, parental self-efficacy, and therapeutic alliance before, during, and after PT. Product-of-coefficients mediation analyses in multilevel models were applied, and causal relations between mediators and outcome were investigated in time-lagged analyses. **Results:** Increased parental self-efficacy and reduced negative parenting statistically mediated reductions in ADHD and conduct problems in the product-of-coefficient analyses. However, time-lagged analyses were unable to detect a causal relation between prior change in mediators and subsequent child symptom reduction. There was limited evidence of therapeutic alliance as mediator of child symptom reduction or change in parenting variables. **Conclusion:** Parental self-efficacy and reductions in negative parenting may mediate change in PT, but more fine-grained time-lagged analyses are needed to establish causality. (*J. of Att. Dis.* XXXX; XX(X) XX-XX)

## Keywords

parent training, ADHD, conduct problems, mediation, incredible years, treatment

ADHD is a neurodevelopmental disorder, characterized by age-inappropriate, persistent, and impairing symptoms of inattention, hyperactivity, and impulsivity (American Psychiatric Association, 2013). The prevalence of childhood ADHD is estimated to be about 5% to 7%, and it is among the most commonly diagnosed childhood disorders (Willcutt, 2012). Children with ADHD are often suffering from emotional dysregulation (Shaw, Stringaris, Nigg, & Leibenluft, 2014), social problems (Bagwell, Molina, Pelham, & Hoza, 2001), and low self-esteem (Mazzone et al., 2013). Parenting a child with ADHD is challenging, as affected children are typically more noncompliant, more negative in interactional style, and harder to manage, compared with children with normal development (Mash & Johnston, 1982). Consequently, families of children with ADHD are often distressed (Theule, Wiener, Tannock, & Jenkins, 2013), have high levels of conflict, and have negative parent-child interactions (Deault, 2010). A negative parenting style may increase the risk of maintaining or exacerbating ADHD symptoms and is a risk factor of development of oppositional defiance disorder (ODD) and conduct disorder (CD; Johnston & Mash, 2001). Therefore, early interventions targeting both child and family difficulties have been developed and evaluated.

Parent training (PT) programs have been found to be effective interventions for ADHD and ADHD symptoms according to parental assessment (Daley et al., 2014; Rimestad, Lambek, Christiansen, & Hougaard, 2016). Some PT programs, such as the Incredible Years (IY) program (Webster-Stratton, Reid, & Beauchaine, 2011), were developed from PT programs for ODD and CD; others, like the New Forest Parent Training Program (Abikoff et al., 2015; Thompson et al., 2009), were specifically developed for ADHD. Rimestad and colleagues (2016) did not find differences in effectiveness between the two types of programs in their meta-analysis of PT for early (2½-6 years) ADHD.

However, little is known about change processes or mechanisms in IY or other PT programs. As stressed by Kazdin (2007), knowledge of *how* an intervention works should help in optimizing therapeutic change by providing

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