

Psychological Approaches to Understanding and Managing ADHD

Carlin J. Miller, Ph.D., C.Psych.

Department of Psychology, University of Windsor

W.O. McCormick Academic Day, Department
of Psychiatry, Dalhousie University and the Nova
Scotia Health Authority Mental Health and
Addictions Program

Disclosures

- No financial ties to industry, including pharmaceutical companies.
- Multiple employer-funded research projects (University of Windsor).
- No Tri-Council funding in the past 2 years.

Learning outcomes

Following this presentation, attendees will:

- ▶ Recognize the need for intervention beyond pharmaceutical-only approaches to ADHD treatment;
- ▶ Describe psychological interventions that may be used as complementary therapies for ADHD in a treatment package with or without pharmaceuticals;
- ▶ Identify which interventions may be more appropriate for a given patient in light of the overall risk profile, including familial, environmental, and individual risk factors.

Why not pharmaceutical-ONLY treatment for ADHD?

- ▶ **MTA results** (MTA Cooperative Group, 1999; MTA Cooperative Group, 2004; Swanson et al., 2007)
- ▶ **The missing 30%** (Antshel et al., 2011)
- ▶ **Compliance problems** (Charach & Fernandez, 2013)
- ▶ **Parent preferences**
- ▶ **Impact on secondary symptoms** (MTA Cooperative Group, 1999)



Examples of Psychological Approaches to Treatment of ADHD

- Social skills training
- Tutoring/school-based services
- Coaching
- Cognitive training
- Psychotherapy
- Parent training
- Parent-child therapy
- Meditation/contemplative practices
- Physical activity
- Holistic lifestyle changes
 - Sleep
 - Diet
 - Screen time
 - Micronutrients

Journal of Clinical Child & Adolescent Psychology, 47(2), 157–198, 2018
 Copyright © Society of Clinical Child & Adolescent Psychology
 ISSN: 1537-4416 print/1537-4424 online
 DOI: <https://doi.org/10.1080/15374416.2017.1390757>

 **Routledge**
 Taylor & Francis Group

 Check for updates

EVIDENCE BASE UPDATE

Evidence-Based Psychosocial Treatments for Children and Adolescents With Attention Deficit/Hyperactivity Disorder

Steven W. Evans, Julie Sarno Owens, Brian T. Wymbs, and A. Raisa Ray
Department of Psychology, Ohio University

The purpose of this research was to update the series of articles on evidence-based treatment for children and adolescents with attention deficit/hyperactivity disorder that have appeared in this journal (Evans, Owens & Bunford, 2014; Pelham & Fabiano, 2008; Pelham, Wheeler, & Chronis, 1998). We completed a systematic review of the literature published between 2012 and 2016 to establish levels of evidence for psychosocial treatments for these youth. We identified articles using criteria established by the Society of Clinical Child and Adolescent Psychology using keyword searches of abstracts and titles. Articles were classified according to a modified version of the Division 12 task force guidelines that was used in other reviews in this series. The results revealed that findings are becoming increasingly nuanced with variations in levels of evidence related to ages of the children and characteristics of the specific treatment. In addition, we focused our critique on generalization of treatment effects across settings and time and on sample diversity (with regard to ethnicity and levels of parent education) in relation to the population. Children of parents with higher levels of education than average appear to be overrepresented in the literature. Implications for future treatment development and evaluation and for dissemination research are discussed.

Social skills training

- ▶ Among the most commonly recommended interventions (Danielson et al., 2018) , yet low efficacy data in general (Evans et al., 2018; Willis et al., 2019)
- ▶ Increased efficacy when children with ADHD have comorbidities, such as anxiety disorders and autism spectrum disorder (Antshel et al., 2011)
- ▶ Increased efficacy when social skills training is part of a larger treatment package that involves multiple contexts adults (Storebø et al., 2012)

Tutoring/ School-based services

- ▶ About 50% of children/adolescents with ADHD get school-based services (Murray et al., 2014)
- ▶ Tutoring alone is unlikely to improve academic problems, particularly with less skilled tutors (DuPaul & Weyandt, 2006; Rabiner et al., 2004)
- ▶ Peer tutoring modestly impacts academic achievement (DuPaul et al., 1998, Plummer & Stoner, 2004)
- ▶ Teachers and their students with ADHD benefit significantly with intensive behaviour management training (Evans et al., 2018)

Coaching

- ▶ Executive functioning coaching for older adolescents and adults (Solanto et al., 2008)
- ▶ Academic coaching for post-secondary students (Prevatt & Yelland, 2015)
- ▶ Coaching in school-aged children (Garcia et al., 2016)

Cognitive training

- ▶ Across multiple studies, commercially available computer-based games programs show limited efficacy (Strahler et al., 2015)
 - ▶ Parents and children report improvements in self-regulation and focus (Minder et al., 2019), but teachers do not typically report similar improvements (Amonn et al., 2013) and objectively measured behaviours do not typically improve (Chacko et al., 2014)
- ▶ Computerized programs may be used to teach organizational skills (Evans et al., 2018)
- ▶ Multiple studies show that cognitive training within parent-child intervention impacts functioning overall (e.g., Healey & Halperin, 2015)

Psychotherapy

- ▶ Impact of psychotherapy on primary and secondary symptoms (Lopez et al., 2018)
- ▶ Impact of psychotherapy on comorbid conditions (Scholle et al., 2018)

Parent training

- ▶ Significant burdens come with having a child with ADHD (Zhao et al., 2019) and may interfere with parents effectively engaging in parent training (Joseph et al., 2019)
- ▶ Less specific parent training is often not effective for families with ADHD (Hagen & Ogden, 2017), but programming designed for parents of children with ADHD improves parenting skills and confidence (Evans et al., 2018; Loren et al, 2015)
- ▶ Effective parent training can be delivered remotely, but may not result in long-term improvements (Olthuis et al., 2018)

Parent-child therapy

- ▶ Parent-child therapy is associated with significant improvements in disruptive behaviour, but smaller effects than medication alone (van der Veen-Mulders et al., 2018)
- ▶ Outcomes related to child ADHD may be the result of indirect influences of improvements in monitoring, negative parenting practices, and parenting stress (Leung et al., 2017)

Meditation/ contemplative practices

- ▶ Mindfulness training improves attention problems and impulsivity (Cairncross & Miller, 2016)
- ▶ Mindfulness training as part of a larger treatment package may be more effective (Cassone, 2015)
- ▶ Mindfulness training for children may be more effective when parents and children do it together (van der Oord et al., 2012)

Physical activity

- ▶ Acute effects on attention and executive functioning (Mehren et al., 2019)
- ▶ Effects on primary symptoms (Verret et al., 2012)
- ▶ Effects on secondary symptoms (Kemp et al., 2014)

Holistic lifestyle changes

- ▶ Direction of effects with regard to sleep and ADHD is equivocal (Bijlenga et al., 2019) and sleep-focused intervention may be needed (Corkum et al., 2016), and ADHD treatment may interfere with sleep (Morash-Conway et al., 2017)
- ▶ ADHD predicts lower quality diet, but not vice versa (Mian et al., 2019)
- ▶ Relations between ADHD and screen time are also equivocal (Miller et al., 2007; Tamana et al., 2019)
- ▶ Nutritional supplements are a growing area of treatment (Danielson et al., 2018) with wide ranging results (Rucklidge, 2018; Scholle et al., 2019)

Role of Adherence

- ▶ Primary treatment goal should be treatment adherence/compliance with effective treatment over time (Brinkman et al., 2018)
 - ▶ Alliance with clinician
 - ▶ Symptom improvement
 - ▶ Parent and client beliefs
- ▶ Better adherence often means better outcomes (MTA Cooperative Group, 1999; Vilodas et al., 2014)
- ▶ Limited knowledge about barriers to psychosocial treatments (Corkum et al., 2015)

Constructing a treatment package

- ▶ Most people with ADHD receive two or more forms of treatment (Danielson et al., 2018)
- ▶ When parents' /patients' preferences match with treatment goals, treatment is usually more effective (Fiks et al., 2013)
- ▶ Treatment outcomes are also influenced by beliefs about ADHD; thus, psychoeducation is a critical component of any treatment package (Charach & Fernandez, 2013)
- ▶ Treatment itself may increase parental stress (Brinkman et al., 2009)

Thank you.

- Email: cjmiller@uwindsor.ca
- Twitter: @DrCarlinMiller
- Facebook: @MindfulnessandADHDatUWindsor