

WHEN PARENTS DECLINE PSYCHOPHARMACOTHERAPY FOR ADHD IN THEIR CHILDREN - MINDFULNESS-BASED INTERVENTION AS AN ADD-ON TO BEHAVIOR THERAPY: A CASE-REPORT OF AN EIGHT YEAR BOY

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INTRODUCTION

Attention deficit/hyperactivity disorder (ADHD), which affects 5-10% of school-aged children, is characterized by inattention, hyperactivity, impulsivity, and abnormalities in cognitive processes (Sharma & Couture 2014). The standard treatment for school-aged children with ADHD, involves behavioral therapy, medications, or both (Wolraich et al. 2019). Despite advances in pharmacological and behavioral treatments of ADHD, persistent residual symptoms are common, highlighting the need for novel treatment strategies. Moreover, many parents of children with ADHD dislike the use of medication for various reasons, and desire alternative forms of treatment (Demidovich et al. 2011).

Mindfulness is a technique of focusing attention that is derived from Eastern meditation practices. Mindfulness-based interventions (MBI) are part of a "third wave" or "third generation" of behavior therapy and involve training attention and cultivating nonjudgmental yet discerning awareness of external and internal experience, including developing acceptance of unpleasant events, thoughts, emotions and somatic sensations (Kabat-Zinn 2003, Rod 2015).

This case report describes an 8 year old student with ADHD who participated in a mindfulness-based group intervention as adjunct to behavior therapy after his mother declined pharmacotherapy.

CASE REPORT

An 8 years old boy was referred to the outpatient child and adolescent mental health service with the complaints of difficulties with attention and hyperactivity. The boy was living with his mother and a younger sister. His parents were divorced and he had regular contact with his father. The mother mentioned that the child was very active since he was very young. Otherwise, the boy's development was normal.

The boy's mother and teacher's report indicated that the boy was restless, "constantly running around" and

that he had difficulties listening and following instructions, often blurted out answers and interrupted other students in the classroom. He had difficulties sustaining attention and he avoided tasks requiring prolonged mental efforts. The boy recognized that he was able to „hyperfocus“ on some activities of interest, e.g. playing video games and watching tv, but displayed oppositional behavior when asked to stop. His performance level in school, with the guidance of his mother, was average. In his spare time, the boy enjoyed football and swimming.

After a comprehensive assessment by a multidisciplinary team (clinical psychologist, speech and educational specialist, neuropediatrician, EEG, child and adolescent psychiatrist), a final diagnosis of Hyperkinetic Disorder/Attention Deficit Hyperactivity Disorder (ADHD) with no comorbid diagnosis as per ICD-10 criteria was made. Wechsler Intelligence Scale for Children showed average level intelligence with the weakest sub-scores in the areas of attention and memory.

Child behavior therapy and parents/teacher-management training were implemented. Child and parents behavioral training programme delivered in a group format included 12 sessions of psychoeducation and specific techniques for managing focus in multiple environments, self-regulation, communication skills, problem solving, anger/frustration management and contingency management.

Individualized educational plan has been implemented at school with academic and behavioral supports (special seating close to the teacher and away from the door and windows, extra time on tests, modified assignments). The teacher received training about ADHD and behavioral interventions within the classroom.

Gradually, some improvements have been noticed in behavior at school and in daily life functioning with behavioral training. However, attentional problems persisted and the boy needed constant instructions and reinforcement at home and at school to complete tasks.

Table 1. ADHD – Rating Scale - 5 Home Version raw scores

ADHD - RS	Initial assessment	After group behavior therapy	After MBI	Follow up 2 months after MBI
Inattention	18	17	13	12
Hyperactivity–impulsivity	17	15	11	10
Total score	35	32	24	22
Relationships with significant others	2	1	0	0
Peer relationships	2	1	0	0
Academic functioning	3	2	1	1
Behavioral functioning	3	2	1	0
Homework functioning	3	2	1	1
Self-esteem	0	0	0	0

ADHD – RS = Attention Deficit/Hyperactivity Disorder Rating Scale; MBI = Mindfulness-based interventions

According to treatment guidelines, school-aged children with persistent ADHD should be offered drug treatment. However, drug treatment has not been accepted by the mother. Alternative approaches of treatment of ADHD were discussed with the parents (neurofeedback, dietary changes, supplements, and mind-body interventions). The mother was motivated to include the boy in the mindfulness-based program for children.

The boy participated in a 8-session weekly mindfulness-based group program for children aged 7 to 10 years. The program includes six to eight children and each session lasts 1.5 h. Mindfulness exercises are presented to children in progression, beginning with awareness of the external environment (mindfulness with senses), then awareness of the body (movement, breath, physical sensations), and finally mindfulness meditation exercises that feature attending to cognitive processes (thoughts and emotions). At the end of each session, the participants received a weekly practice form that lists their weekly practice “assignment” (10 to 15 minutes). Parents were instructed to guide their child in formal and informal home practice.

The boy attended all 8 sessions of the program. His mother reported that the boy completed two thirds of formal home practice with her help and several informal mindful activities.

After the program completion, the boy reported that mindfulness helped him „concentrate better“ and „focus my attention on one task“. He also stated that mindfulness practice „made me a lot lot calmer.... and cleared my mind.... it helped me with my anger.... you control how you act“. He described the change in his emotional response after mindfulness training as he was being able to manage his response differently “It made me a lot better person“.

The mother and teacher reported a reduction in boy's inattention, hyperactivity, and impulsivity, and improvements in self-control and academic performance. Table 1. presents the boy's scores on ADHD – Rating Scale Home Version at the initial assessment, after group behavior therapy and after mindfulness group program.

DISCUSSION

This case indicates that MBI can be effective alternative for treatment of persistent ADHD in school-aged patients when behavior therapy proves insufficient and parents do not accept medications. Pharmacological treatments for ADHD are efficacious and are widely used, but some parents have reservations about medication use (Demidovich et al. 2011).

MBI for ADHD are gaining promising preliminary empirical support (Evans et al. 2018, Xue et al. 2019) and are increasingly administered in children with ADHD (Zylowska 2009, Cassone 2015). It has been suggested that MBI enhance self-regulation in ADHD through three interacting processes: enhanced attention control, improved emotional regulation and self-awareness (Zylowska 2009). Given the multiple attention/cognitive/behavioral impairments in ADHD, mindful awareness training can be seen as either a remediation (compensatory) or rehabilitation (reversal) approach in this condition. Mindfulness practice is likely to repeatedly engage executive function (attention, working memory and inhibition) potentially leading to strengthening of these abilities and broad changes in self-regulatory abilities (Zylowska 2009).

Randomized and controlled (clinical) trials with large samples, standardized formats for interventions and objective measures are under way and will provide more robust data on the effects of MBI on ADHD in children (Siebelink 2018). Further, parents engagement in MBI for children with ADHD is crucial and further research is needed to clarify the effectiveness of delivering MBI involving children only and families.

CONCLUSION

ADHD is a chronic condition that impacts functioning throughout the span of life and requires multimodal interventions. ADHD medication can have undesired side effects, is refused by some families, compliance may be low, improvements do not last after medication discontinuation and its long-term effectiveness and safety are not yet well known.

Psychosocial treatments show to be far less effective in reducing ADHD symptoms compared to stimulant medication and a combined psychosocial and medical treatment failed to show additive benefits to medication alone. These shortcomings might be addressed by offering a MBI because of its demonstrated attentional, cognitive and behavioral benefits. Mindfulness treatment for childhood ADHD may be a potential alternative to medication given that the nature of this treatment targets the core symptoms of ADHD. Further research is needed to determine optimal conditions and to firmly establish its efficacy as adjunct or alternative to standard treatment of ADHD in youth.

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Vlatka Boričević Maršanić study design, data collection.

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