

DOCTORAL THESIS

Mindfulness for Adults with Attention-Deficit/Hyperactivity Disorder Symptoms in China

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ABSTRACT

There is a high prevalence of adults with attention deficit hyperactivity disorder (ADHD) who face significantly negative challenges. The dual pathway model (DPM) provides a comprehensive explanation of the neuropsychological causes of ADHD. However, this model has not been comprehensively investigated in the Chinese population. Mindfulness-based interventions (MBIs) are also used for attention regulation and considered a promising treatment for ADHD. Yet, the effects of both models have not been empirically studied in China or globally. International studies have shown that MBIs reduce ADHD symptoms by enhancing executive functions, but there is no empirical support for MBIs that influence ADHD symptoms through changes in delay aversion, either in China or internationally.

To address the research gaps in the literature, this study aims to: (1) describe the DPM and the pathways in executive function and delay aversion among adults with ADHD in China, thus providing more empirical evidence for the potential applicability of the DPM in Chinese adults; (2) explore how mindfulness affects ADHD symptoms through executive dysfunction and delay aversion pathways, including the sub-aspects, and provide empirical evidence; (3) test the efficacy of the Mindfulness Awareness Program (MAP) in reducing ADHD symptoms, enhancing executive functions, and reducing delay aversion among Chinese adults with ADHD; and (4) explore the mechanism of MBIs for changes in ADHD symptoms through changes in executive functions and delay aversion.

Two studies are carried out in this thesis. Study 1 is a large-scale investigation with the use of both online and in-person questionnaires to determine if Chinese adults with suspected ADHD exhibit more symptoms, have deteriorated executive functions, and higher delay aversion. Study 1 also examines whether executive functions and delay aversion can predict the presence or absence of suspected ADHD and mediate the relationship between mindfulness and ADHD symptoms.

Study 2 is a randomized controlled trial with 120 adult participants with ADHD that is conducted both online and in-person. An 8-week adapted and translated version of the MAP is implemented. Assessments are then conducted at baseline (T0), post-treatment (T1), and after 2-months at a follow-up visit (T2), which focus on the primary (ADHD symptoms, executive functions, and delay aversion) and process (mindfulness, self-compassion, depression, anxiety, stress, and well-being) outcomes. The results of the two groups are compared, and the mediating effects of executive function and delay aversion between them and ADHD are explored.

It is found in Study 1 that the performance of Chinese adults with suspected ADHD lags behind that of adults without suspected ADHD. The DPM is also found to be suitable for Chinese adults with ADHD. Acting with awareness is the mindfulness aspect that affects them the most, followed by non-judging and describing. Mindfulness affects the ADHD symptoms through executive function and delay aversion.

Study 2 finds that the adapted MAP is effective for Chinese adults with ADHD to reduce their symptoms. Cultural influences affect the long-term effects of MAP on self-judgment and

emotion. MAP can also reduce ADHD symptoms by increasing mindfulness and reducing executive dysfunction and delay aversion. MAP affects the two pathways differently, and the executive function pathway has a more obvious effect on ADHD symptoms. Finally, the indirect effect size varies for each mediation model, with the largest effect being the path in which mindfulness and executive function are involved.

Theoretically, this study provides support for a conceptual model that explains how mindfulness affects ADHD through the DPM. Practically, an effective MAP protocol for Chinese adults with ADHD can be developed, and specific intervention elements can be designed in the future for therapists who work with this population.