Implementation of a Mindfulness-Based Intervention among adolescents with behavior disorders: a randomized controlled trial
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Background and objectives
The manualization of several mindfulness programs enables their evaluation and the standardization of their application in adult populations (e.g. the Mindfulness-Based Stress Reduction program, MBSR, Kabat-Zinn, 1990). However, less research has been conducted among young people although existing results appear promising (Deplus, Billieux, Scharff, & Philippot, 2016). The aim of this study is to investigate the efficacy of a Mindfulness-based intervention (MBI) in a population of adolescents with behavior disorders.

Method
Participants included 40 adolescents presenting behavior disorders and mild cognitive impairments, living in a Residential Service for Young (SRJ) in Belgium. Two groups of adolescents aged 12 to 19 years have been constituted. The active-control group followed a psycho-educational intervention based on health promotion (\(n=19\)) and the experimental group followed a MBI (\(n=21\)). This program was divided into two parts: the first 6 sessions were devoted to group dynamic and introduction to emotional skills whereas the second part focused on mindfulness exercises. The level of depression, impulsivity, the attentional capacities as well as the symptomatology of attention deficit hyperactivity disorder (ADHD) were assessed before, during and after the program for both groups.

Results
Both groups decreased their depressive symptomatology and increased their level of impulsivity. The attentional capacities of the adolescents were improved during the MBI only and no change was found for ADHD.

Discussion
Surprisingly, the MBI did not differ from an active control group on depressive, impulsive and ADHD outcomes. One explanation may be the strong efficacy of the institutional treatment common to both groups. Moreover, the unexpected result concerning impulsivity could be interpreted as a failure of MBI to modify the standard evolution of this outcome for these adolescents. The confrontation to their emotions by mindfulness exercises could have been stressful. Finally, the MBI succeeded in improving attention on attentional task. This result raises the importance of the measure choice among adolescents.

Conclusion
Further research is needed to clearly define the benefit of mindfulness for adolescents with behavior disorders. Implications of processes that may be involved are discussed.