The effectiveness of Minfulness Training for Children: a systematic review

Elena Belmonte, Ana Rodríguez, Carlos Cedrón, Lucia Pérez, María Polo, Anna Masso

Institute of Neuropsychiatry and Addictions (INAD). Barcelona

Correspondence: elena.belmonte89@gmail.com

Introduction

Within the realm of scientific psychology, Bishop et al. (2004, p. 232) defined mindfulness as a two-component construct consisting of "the self-regulation of attention so that it is maintained on immediate experience," which is accompanied by "a particular orientation toward one's experiences in the present moment, an orientation that is characterized by curiosity, openness, and acceptance." In order to adopt this definition for use within applied psychology, there are two key assumptions necessary. The first is that these components of mindfulness represent skills that can be learned like any other skill. The second is that learning mindfulness skills can have therapeutic effects on life outcomes.

The use of mindfulness-based interventions for different mental disorders has considerably increased in recent years. However, there is still little empirical evidence, as well as a strong controversy, concerning the efficacy of this modality of intervention in children and adolescents.

Thus,this work aimed to present a systematic review on the effectiveness of Mindfulness-based interventions for the treatment in children and adolescents.

Method

Literature review was done to locate published papers and research studies investigating mindfulness training for children and adolescents. The search criteria included the descriptors of "mindfulness", "minful", "ADHD", "anxiety", "depression", "children" "adolescent". Boolean operators 'OR', '*', 'AND' were also used to capture potential studies.

The articles included in this review have been selected taking into account the following inclusion criteria:

- Search limited to the period between 2008 and 2018.
- Empirical articles published in English: randomized controled trials.
- Studies that apply applied mindfulness-based interventions to clinical sample.
- Studies that analyzed the effectiveness of mindfulness

Articles were excluded if they did not include Minfulness intervention in its entirety, we discard studies with non-clinical sample, and a non-analytical studies (such as case reports or case series). Totally of 152 studies were identified; 7 met the inclusion and exclusion criteria and were reviewed.

Results

Studies	Research design	Population	Number of participants	Age (mean)	Intervention outcomes
Biegel et al. (2009)	RCT vs TAU	49% Affective disorders, 30,4% anxietys disorder, 24,5% other	102	14-18 (15,3)	Reduction of self-reported symptoms of anxiety, depression and somatization; improvement of self-esteem and quality of sleep vs TAU. 45% no longer meet diagnostic. criteria. The changes are more pronounced in affective disorders.
Chan et al. (2014)	RCT vs WL	TAG	16	9-12 (10,5)	Significant decrease in the severity of anxiety and increase in overall functioning. 58% of children after the intervention no longer meet criteria for GAD.
Liehr & Diaz (2010)	RCT vs HEI	Affective and anxiety disorders	18	7-12 (9,5)	Decreased anxiety and depression in the two groups. Greater reduction of depressive symptoms.
Lo et al. (2017)	RCT vs WL	TDAH	100	5-7 (6)	Improvement of the symptomatology ADHD, moderate effects (-0,60), improvement in the parental stress.
Semple et al. (2010)	RCT vs TAU	symptoms of stress and anxiety	25	9-13 (11)	Reduction of attentional difficulties. Significant improvements in the follow up of anxiety symptoms in the subgroup of anxious children.
Tan & Martin (2015)	RCT vs TAU	mental health users	108	13-18 (15,4)	Decrease in stress. The improvements augmented in the follow-up (self-esteem, mindfulness, cognitive flexibility and resilience).
Diaz-González et al. (2015)	RCT vs TAU	mental health users	101	13-16 (14,5)	There are no significant differences in the Mindfulness measures. Decrease in anxiety symptoms.

Note: Treatment: randomized control trials (RCT), wait list (WL), treatment as usual (TAU). Population: generalized anxiety disorder (GAD), attention deficit hyperactivity disorder (ADHD).

Conclusion

This review examined the evidence for effectiveness of mindfulness-based interventions in children and adolescents. Therapeutic programs based on mindfulness, which had already shown its efficacy in the adult population (eg, Hodann-Caudevilla and Serrano-Pintado, 2016), appear to be equally effective in the child-adolescent population, making the changes relevant and adaptations necessary for an application appropriate to the age range. However, many of the studies present a series of methodological limitations that restrict, in part, the generalization of their results. Some limitations are the use of small samples, the non-use of follow-up measures or the comparison with a TAU or WL instead of a well-established treatment.

Finally, and based on these results, it should be noted that the techniques based on Mindfulness requires more scientific support. However, at least they can be recognize as complementary or coadjuvant techniques in cognitive treatments behavioral (Hortynska et al., 2016, Marchand, 2013).

INAD Institut de Neuropsiquiatria i Addiccions

Parc de Salut MAR Barcelona