

Effect of MBSR on perceived cognitive dysfunction (fibrofog) in patients with fibromyalgia

Albert Feliu-Soler^{1,2,3}, Adrián Pérez-Aranda^{1,2,3}, Laura Andrés-Rodríguez^{1,2,3}, Natalia Díaz⁴, Anna Kratz⁵, Juan Luciano^{1,2,3}

¹*Institut de Recerca Sant Joan de Déu, Esplugues de Llobregat, Spain*

²*Teaching, Research & Innovation Unit - Parc Sanitari Sant Joan de Déu, St. Boi de Llobregat, Spain*

³*Primary Care Prevention and Health Promotion Research Network (RedIAPP), Madrid, Spain*

⁴*Dr. Enrique Tornú Hospital, Buenos Aires, Argentina*

⁵*University of Michigan, Ann Arbor, United States*

Background and Objectives

Fibromyalgia (FM) is a syndrome characterized by a broad range of symptoms such as chronic widespread musculoskeletal pain, fatigue, stiffness, sleep problems, psychological distress and cognitive disturbances. Over 50% of patients with FM present a subjective perception of impaired cognition. Perceived dyscognition (fibrofog) has been ranked as one of the top five major contributors to distress in FM, and is associated with negative impact on health-related quality of life, perceived disability, impaired job performance, and increased health care utilization. To date, there are no curative treatments for FM. Nevertheless, promising clinical results after mindfulness-based interventions –mainly Mindfulness-Based Stress Reduction program (MBSR)– have been observed in patients with FM, and benefits on cognitive function have been reported related to mindfulness training. The EUDAIMON project aims at evaluating the effectiveness and cost-effectiveness of MBSR in patients with FM compared to Treatment-As-Usual (TAU) and to a multicomponent intervention which proved to be effective and cost-effective in a previous RCT (i.e. FibroQoL). The main objective of the present study –performed with preliminary data from the EUDAIMON project– is to evaluate the effects of MBSR on fibrofog in a sample of patients with FM in comparison to TAU and to FibroQoL.

Method

120 patients with FM completed a measure of perceived dyscognition (i.e. the Multidimensional Inventory of Subjective Cognitive Impairment; MISCI) and the Five-Facets Mindfulness Questionnaire (FFMQ). Post-intervention MISCI scores from 96 patients were available for evaluating changes in fibrofog (MBSR, n=37; FibroQoL, n=37; TAU, n=22). Pearson correlations between mindfulness facets and MISCI scores were evaluated at baseline and a repeated-measures ANOVA was performed for evaluating changes in MISCI scores.

Results

Significant associations between MISCI and FFMQ-Describe ($r=.34$, $p<.001$) and, FFMQ-Act with awareness ($r=.44$, $p<.001$) and FFMQ-Nonjudging ($r=.26$, $p<.001$) were observed indicating that higher levels of mindfulness are related to lower levels of fibrofog. A group x time interaction was observed ($p=.001$) and posthoc analyses showed a significant reduction in fibrofog ($p<.001$) only in the MBSR group (29% of reduction; Cohen's $d=.98$).

Discussion and Conclusions

Our findings indicate that MBSR may be a valuable intervention to treat perceived dyscognition in FM.