

# **Effects of an 8 week mindfulness based stress reduction program on anxiety and fatigue levels of patients with multiple sclerosis.**

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## **Background and objectives:**

Multiple sclerosis (MS) is an auto-immune disease affecting approximately 100 000 adults in Canada and 350 000 in the United States. It is noted that 65% of MS patients complain of fatigue, and that 25% of them are suffering from anxiety disorder. However, the actual usual treatments offered to patients with MS seem somewhat limited in terms of addressing successfully these symptoms. On the other hand, a growing body of literature points out the potential of mindfulness interventions on various physiological and psychological variables. This study's objective is to examine whether a complementary treatment based on mindfulness could improve the quality of life of these patients. More specifically, this study measures the effects of an 8 week mindfulness based stress reduction program on the anxiety and fatigue levels of MS patients.

## **Methods:**

9 patients with MS participated in the intervention. The inclusion criteria necessary to participate to this study were: 1) diagnosis of relapsing-remitting or secondary progressive MS; 2) being able to read and write; and 3) being able to attend the weekly session for an 8 week period. In consideration of the specificity of these MS patients, the 8 week intervention consisted of a slight adaptation of the mindfulness based stress reduction program - MBSR (Kabat-Zinn 1990). The program included 8 weekly 2 hour classes of formal and informal mindfulness practices, discussions on how to integrate mindfulness in various life situations, as well as homework assignments of 20 minutes/day. The two outcomes variables were anxiety and fatigue, and measured pre and postintervention with good metric quality questionnaires (STAI and FIS).

## **Results:**

Attendance and volume of practice rates were both high (respectively 86% and 85%). Both anxiety and fatigue levels reduced significantly postintervention ( $p < 0.05$ ) using a t test and the Wilcoxon signed rank test.

## **Discussion and Conclusion:**

These results indicate that a typical yet relatively short mindfulness based intervention is highly beneficial for patients with MS, in addition to the usual treatment. Future studies should focus on the identification of the active ingredients, and on the key factors of success in teaching mindfulness.