

## **Effectiveness of Mindfulness-Based Stress Reduction in a Self-Selecting and Self-Paying Community Setting**

Lise Juul<sup>1</sup>, Karen Johanne Pallesen<sup>1</sup>, Jacob Piet<sup>1</sup>, Christine Parsons<sup>2</sup>, Lone Overby Fjorback<sup>1</sup>

<sup>1</sup>*Danish Center for Mindfulness, Aarhus University, Aarhus, Denmark*

<sup>2</sup>*School of Culture and Society, Interacting Minds Centre, Aarhus University, Aarhus, Denmark*

We aimed to evaluate the effectiveness of Mindfulness-Based Stress Reduction (MBSR) when implemented in a community setting as a self-referred and self-paid course. Pre-post changes and Cohen's *d* effect sizes were calculated for questionnaire measures of mindfulness, perceived stress, and symptoms of anxiety and depression. We compared these effect sizes with those from intervention groups in randomized controlled trials (RCTs), with populations similar to our study sample. These RCTs reported significant effects of MBSR compared to control condition. MBSR was delivered in three different Danish cities by ten different MBSR teachers with various professional backgrounds and MBSR teaching experience. One hundred and thirty-two participants were included in the study: 79% were women, mean age  $45 \pm 10.4$  years, 75% of the participants had more than 15 years of education, 38% had a Perceived Stress Scale (PSS) score  $\geq 18$ , and 27% had a history of mental disorder. Post MBSR, the proportion of participants with a PSS  $\geq 18$  decreased by 16% points (95%CI -26 to -6),  $p = 0.0032$ . Within-group effect sizes for (i) the total study population (ii) the subgroup with PSS  $\geq 18$  at baseline (iii) intervention group in reference RCTs were as follows: PSS:  $d = 0.50:1.47:1.00$ , Symptom Check List 5:  $d = 0.48:0.81:0.77$ , Five Facet Mindfulness Questionnaire:  $d = 0.67:1.09:1.00$ . Our results showed that MBSR was effective. The effects were largest among the participants reporting highest perceived stress level at baseline. Our participants were mainly women who were middle-aged, with high educational levels, and more perceived stress and a greater history of mental disorder than the general population, and who were able to seek out and pay for an MBSR course. Reaching vulnerable groups with a clear need for stress management will, however, require other implementation strategies.