

## **Mindfulness-Based Stress Reduction Program for University Employees: a pilot study**

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**Introduction:** Work-related stress is among the most commonly reported causes of work-related illness, affecting more than 40 million individuals across the European Union (EU). This poses increasing social and clinical challenges, in terms of maintaining or improving quality of life, health and work capacity. It has been demonstrated that mindfulness-based interventions can be a protective factor against burnout and stress of high-risk professions. However, underlying biological mechanisms require further investigation.

**Goal:** The aim of this study was to evaluate the effectiveness of an 8-week mindfulness-based stress reduction program (MBSR) in improving the physical and psychological well-being in a work context.

**Methods:** Volunteers participants were recruited among employees working in Siena University (Italy). Study was conducted on 25 MBSR participants compared to a Wait-List control group (n. 30). Psychological measures and saliva sampling were assessed pre- and post-training. Cortisol was measured by an Enzyme Immunoassay kit. Cytokines were assayed by means of Bioplex Assay.

**Results:** A significant improvement in distress, anxiety, and awareness was observed within the MBSR group, when compared with the control group. MBSR participants also showed decreased levels of stress biomarkers as cortisol and inflammatory cytokines. Control subjects did not show any significant difference.

**Conclusions:** This study adds to the growing body of research that mindfulness may be an effective method for reducing workplace stress. We also originally demonstrated that MBSR may reduce inflammatory markers of stress commonly implicated in many diseases. Reducing work-related stress can lead to greater efficiency and an improvement in the health of workers with consequent economic and social benefits.

Keywords: Mindfulness, work-related stress, biomarkers