

## **An 8-week, worksite-based relaxation program to reduce stress and attenuate stress-driven eating: A randomized feasibility trial.**

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**Background and objectives:** Interventions aimed at decreasing stress may play an important role in attenuating the harmful effects of stress-induced eating. This trial examined the feasibility and preliminary efficacy of a worksite-based, 8-week mindfulness meditation-progressive muscle relaxation intervention to address psychological stress and reduce unhealthy food intake. **Methods:** Thirty-six men and women, provided baseline data (BMI, psychometrics, palatable food intake and degree of cravings), and attended a laboratory session in which they were exposed to an acute stressor during which physiological and psychological responses were assessed, prior to being offered a laboratory test meal. Participants were then randomly allocated to either a mindful relaxation group (RELAX), which required attendance to a once-weekly face-to-face class, and maintenance of a home-based, daily 20-minute practice (alternating between progressive muscle relaxation and mindfulness meditation practice every 2 weeks), or a waitlist control group (CON). All measures were repeated after the 8-week intervention period. **Results:** Compliance to the intervention was high (80% ± 19% face-to-face; 79% ± 18% scheduled home practice), with each session acutely reducing perceived stress and increasing relaxation ( $p < 0.001$ ). Trait mindfulness was increased pre- to post-intervention ( $p = 0.025$ ), and reduced tension ( $p = 0.013$ ) and increased relaxation ( $p < 0.05$ ) was noted during the acute stress exposure in the intervention group, but not the control group. Other aspects of the acute stress response remained unchanged, and no differences in post-stressor energy intake, palatable eating, or cravings were noted, across time, or between groups and associated effect sizes were small. **Discussion:** An 8-week relaxation intervention based in the workplace is practically viable in terms of recruitment, fidelity, dose, and acceptability, and can affect state and trait mindfulness, along with perceived levels of tension, and relaxation in response to an acute stressor. However, this intervention did not appear to influence food cravings or stress-driven eating after exposure to an acute stressor. **Conclusion:** Daily 20-minute practice of mindful relaxation is feasible, has benefits for mindfulness and stress, but may not exert strong effects on appetite and food intake.