

Northumbria Research Link

Citation: Kennedy, David, Little, Wendy and Scholey, Andrew (2004) Attenuation of laboratory-induced stress in humans after acute administration of melissa officinalis (lemon balm). *Psychosomatic Medicine*, 66 (4). pp. 607-613. ISSN 0033-3174

Published by: Lippincott Williams & Wilkins

URL: <http://dx.doi.org/10.1097/01.psy.0000132877.72833....>
<<http://dx.doi.org/10.1097/01.psy.0000132877.72833.71>>

This version was downloaded from Northumbria Research Link:
<http://nrl.northumbria.ac.uk/3020/>

Northumbria University has developed Northumbria Research Link (NRL) to enable users to access the University's research output. Copyright © and moral rights for items on NRL are retained by the individual author(s) and/or other copyright owners. Single copies of full items can be reproduced, displayed or performed, and given to third parties in any format or medium for personal research or study, educational, or not-for-profit purposes without prior permission or charge, provided the authors, title and full bibliographic details are given, as well as a hyperlink and/or URL to the original metadata page. The content must not be changed in any way. Full items must not be sold commercially in any format or medium without formal permission of the copyright holder. The full policy is available online: <http://nrl.northumbria.ac.uk/policies.html>

This document may differ from the final, published version of the research and has been made available online in accordance with publisher policies. To read and/or cite from the published version of the research, please visit the publisher's website (a subscription may be required.)

www.northumbria.ac.uk/nrl



Attenuation of Laboratory-Induced Stress in Humans After Acute Administration of *Melissa officinalis* (Lemon Balm)

David O. Kennedy, Bsc, PhD, Wendy Little, Bsc and Andrew B. Scholey, Bsc, PhD

Objective: *Melissa officinalis* (lemon balm) is contemporaneously used as a mild sedative and/or calming agent. Although recent research has demonstrated modulation of mood in keeping with these roles, no studies to date have directly investigated the effects of this herbal medication on laboratory-induced psychological stress.

Methods: In this double-blind, placebo-controlled, randomized, balanced crossover experiment, 18 healthy volunteers received two separate single doses of a standardized *M. officinalis* extract (300 mg, 600 mg) and a placebo, on separate days separated by a 7-day washout period. Modulation of mood was assessed during predose and 1-hour postdose completions of a 20-minute version of the Defined Intensity Stressor Simulation (DISS) battery. Cognitive performance on the four concurrent tasks of the battery was also assessed.

Results: The results showed that the 600-mg dose of Melissa ameliorated the negative mood effects of the DISS, with significantly increased self-ratings of calmness and reduced self-ratings of alertness. In addition, a significant increase in the speed of mathematical processing, with no reduction in accuracy, was observed after ingestion of the 300-mg dose.

Conclusion: These results suggest that the potential for *M. officinalis* to mitigate the effects of stress deserves further investigation.

Key Words: Acute effects, • *Melissa officinalis*, • lemon balm, • stress, • mood.