Effect of Kava and Valerian on physiological and psychological responses to mental stress assessed under laboratory conditions

Dr. Mark Cropley

**Department of Psychology,
School of Human Sciences,
University of Surrey**

Objective
This study investigated whether Kava or Valerian could moderate the effects of psychological stress induced under laboratory conditions in a group of healthy volunteers.

Material and methods
Fifty-one participants performed a standardised colour/word mental stress task on two occasions one week apart. Blood pressure (BP), heart rate (HR), and subjective ratings of stress were assessed at rest and during the mental stress task. Following the first session, individuals took a standard dose of Kava (n = 18), or Valerian (n = 18) for seven days, while the remainder acted as controls (n = 15). Differences in BP and HR from resting levels were calculated as reactions to the stress tasks at both time points.

Results
There were no significant differences in BP, HR or subjective reports of pressure between time-one (T1) and time-two (T2) in the controls. At T2 there was a significant decrease in systolic BP responsivity in both the Kava and Valerian groups relative to T1, but there were no significant reduction in diastolic BP. Between T1 and T2, HR reactions to mental stress was found to decline in the Valerian group but not in the Kava group. Individuals taking Kava or Valerian reported less stress during the tasks at T2 relative to T1. Behavioural performance on the colour/word task did not change between the groups over the two time points.

Conclusion
The results suggest that Kava and Valerian may be beneficial to health by reducing physiological reactivity during stressful situations.