## Forest therapy: an environmental approach to managing stress in middle-aged working women

## **ABSTRACT**

This study aims to determine the physiological and psychosocial effects of forest therapy on the stress levels of middle-aged working women. Nineteen middle-aged working women ( $54.80 \pm 0.68$ years old) participated in a half-day forest therapy program conducted at Bukit Ekspo; A treedominated urban park located at the centre of Universiti Putra Malaysia. For the physiological indices, the systolic blood pressure (SBP), diastolic blood pressure (DBP) and pulse rate of the participants were evaluated three times a day; Before breakfast, lunch and dinner. The readings were obtained two days before, during and three days after the forest therapy program. The physiological readings obtained two days before the study served as the baseline reading, as it represented the normal, everyday physiological condition of the participants. The baseline SBP  $(124.16 \pm 0.79 \text{mmHg})$  and the baseline DBP  $(81.89 \pm 0.50 \text{ mmHg})$  of the participants were beyond healthy levels, falling into Stage 1 hypertension. The mean SBP of the participants significantly reduced during the forest therapy day (118.72  $\pm$  0.67mmHG) and three days after the forest therapy day (119.51  $\pm$  0.79mmHG). This reduction was also observed for the DBP readings, whereby the mean DBP readings for the forest therapy day (78.65  $\pm$  0.44mmHG) and three days after ( $78.47 \pm 0.48$ mmHG) were lower than the baseline values. There were no significant changes in the pulse rate. For the psychosocial perspective, the participants self-evaluated themselves to determine the effects of forest therapy on their mental wellbeing. Only 16% of the participants believed that they successfully performed self-regulation when faced with stressful situations, although 74% of the participants admitted to experiencing stress on a daily basis. After participating in forest therapy, the majority of the participants felt rejuvenated and more at ease at work. In conclusion, forest therapy is an effective stress management tool for middle-aged female employees.

**Keyword:** Preventive medicine; Workplace stress; Blood pressure; Preventive medicine; Recovery experience