

The influence of PROP taster status on habitual sweet food consumption and dietary intake amongst obese and non-obese adults

ABSTRACT

Introduction: Ability to taste 6-n-propylthiouracil (PROP) predicts both taste sensitivity and food preferences, with PROP tasters being more sensitive to sweet taste in foods, which may lead to less intake of sugary foods. However, when obesity progresses, the individual's sense of taste and eating patterns may change. The aim of this study was to evaluate if PROP taster status affected habitual sweet food consumption and nutritional intake in obese and non-obese people. Methods: A total of 88 obese and 92 non-obese Malay male and female participants aged 20-45 years were classified into PROP non-tasters, medium tasters, or supertasters by using PROP filter paper screening procedure. Sweet food consumption was assessed using food frequency questionnaire (FFQ), while dietary intake was measured by using 3-day food diary. Data were analysed using General Linear Model (GLM) Analysis of Covariance (ANCOVA) to compare for differences and associations among variables. Results: Overall, there was no significant association between body mass index groups and PROP taster status ($p>0.05$). No significant differences were found on any habitual sweet food intake and dietary intake according to PROP taster status in both obese and non-obese participants ($p>0.05$). However, there was a significant difference ($p<0.05$) in fruit intake according to PROP taster status among obese participants. Conclusion: The findings suggest that PROP taster status does not play a role in nutrient intakes among obese and non-obese individuals.