Abstract

Central obesity is a growing public health concern in Indonesia and may be influenced by dietary intake and individual differences in taste perception. Sensory sensitivity and liking for sweet and fatty tastes may affect food preference and intake, but their relationship with central adiposity remains unclear. This cross-sectional study examined the associations between sensory sensitivity and liking for sweet and fatty tastes, dietary sugar and fat intake, and central obesity measured by waist-to-hip ratio among 65 Indonesian individuals of reproductive age in the Jakarta area. Sensory sensitivity was assessed using threshold and intensity tests, sensory liking was measured using a 9-point hedonic scale, dietary intake was assessed using three non-consecutive 24-hour dietary recalls, and waist-to-hip ratio was calculated from waist and hip circumference. Fat threshold was positively correlated with waist-to-hip ratio ($\rho = 0.64$, $p < 0.05$), while fat intensity was negatively correlated with waist-to-hip ratio ($\rho = -0.58$, $p < 0.05$). Similar findings were observed for sweet threshold ($\rho = 0.62$, $p < 0.05$) and sweet intensity ($\rho = -0.64$, $p < 0.05$). After adjustment, fat threshold, fat intensity, sweet threshold, and sweet intensity remained significantly associated with waist-to-hip ratio ($p < 0.05$). Sensory liking and most dietary intake variables showed weaker and less consistent associations. Lower sensitivity to sweet and fatty tastes may be associated with higher central adiposity.

Keywords: *Central adiposity, Dietary fat intake, Dietary sugar intake, Sensory liking, Sensory sensitivity, Waist-to-hip ratio*