

Betel nut chewing and other risk factors associated with obesity among Taiwan male adults (Int J Obes Relat Metab Disord 30: 359-363)

Objective: The research aimed at examining betel nut chewing and other risk factors associated with obesity among Taiwanese male adults.

Design: The research analyzed the data obtained by the 2001 National Health Interview Survey in Taiwan that covered all the administrative divisions in Taiwan. Multistage stratified systematic sampling design was adopted for survey. All members of a sampled household received the interview.

Subjects: The research analyzed questionnaires answered by nonaboriginal male respondents aged between 20 and 59 years old, and the total number of samples analyzed read 6126. Since very few female subjects chewed betel nut, they were excluded from the analysis.

Measurements: Criteria of obesity was defined as body mass index  $\geq 27$  kg/m<sup>2</sup>. The variables incorporated for analysis included the respondents' status of betel nut chewing, age, educational background, presence of hypertension and diabetes mellitus, drinking and smoking status, exercise status, and demand for physical strength at job. Generalized estimating equations model was employed to estimate the odd ratios (with 95% CI) of obesity of each independent variable.

Results: Approximately 16.2% of respondents were obese. The distribution of betel nut chewing was current chewers 15.9%, ex-chewers 4.3%, and nonchewers 79.8%. After controlling above-mentioned independent variables, hypertension, diabetes mellitus, betel nut chewing, never exercising, and sedentary jobs were closely associated with obesity.

Conclusion: The research found that betel nut chewing closely associated with obesity. The increased appetite of betel nut chewers is speculated as the underlying cause. The prospective study is needed to clarify this issue. In addition to increasing the risk of developing oral cancer, betel nut chewing seemed to be related with another health hazard: obesity.