

ABSTRACT

Heated tobacco products (HTPs) are nicotine-containing products similar to cigarettes and are widely used in Japan. However, there has been insufficient research on nicotine dependence associated with HTP use. This study investigated the association of the types of individuals who smoked with the prevalence of nicotine dependence. We utilized data from the Japan Survey on Tobacco and Health (JASTIS). A total of 7,969 participants who currently smoke was selected from the 2022 and 2023 survey respondents for the analysis. Nicotine dependence was defined as a score of 5 or higher on the Tobacco Dependence Screener (TDS). The prevalence of nicotine dependence was 43.0% (3,473/8,077) among all participants who smoked, 42.9% (1479/3447) among those who used cigarettes, 44.2% (760/1720) among those who used two products, and 43.0% (1206/2802) among those who used HTPs. The prevalence of nicotine dependence was statistically higher in the participants who used two products than in cigarettes (odds ratio [OR], 1.17; 95% confidence interval [CI], 1.04–1.33). When classified by temperature, participants who used two products (high-temp and low-temp) and those using participants who used HTPs (high-temp) had higher ORs for prevalent nicotine dependence (OR, 1.31 [95% CI, 1.14-1.51] and (OR, 1.12 [95% CI, 1.00-1.25], respectively) compared to participants who used cigarettes. Additionally, the ORs for prevalent nicotine dependence increased with the number of tobacco sticks smoked per day. These results suggest that HTP use, particularly high-temperature HTPs use, and a higher number of tobacco sticks smoked is associated with nicotine dependence.