

# Ever use of electronic cigarettes and its associated factors among adolescents in Kota Bharu, Kelantan

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Track: Youth and Students

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## ABSTRACT

**Introduction:** The 2022 National Health and Morbidity Survey (NHMS) reported a decline in conventional cigarette smoking among Malaysian adolescents, but e-cigarette use has emerged as the most prevalent tobacco product at 14.9%. This trend is concerning due to associated health risks, nicotine dependence, and social influences that may contribute to tobacco use normalisation. Aim(s): To determine the factors (age, sex, exposure to tobacco use, knowledge, attitude and monthly household income) associated with ever use of e-cigarettes among adolescents in Kota Bharu, Kelantan. **Materials and Methods:** A cross-sectional study was conducted among 411 secondary school students in Kota Bharu, Kelantan using a three-stage stratified sampling method. Data were collected using a validated self-administered questionnaire in Bahasa Malaysia. Descriptive statistics and multiple logistic regression analyses were performed using SPSS version 29. **Results:** Most participants (99.8%) were Malay, with a mean age of 14.6 years (SD = 1.12). The sex distribution was 48.9% male and 51.1% female. The prevalence of ever e-cigarette use was 13.1%, with a mean initiation age of 12.8 years (SD = 1.75). Older age (AOR = 1.77; 95% CI: 1.28, 2.47;  $p < 0.001$ ), male sex (AOR = 5.86; 95% CI: 2.47, 13.88;  $p < 0.001$ ), and attitude score (AOR = 0.84; 95% CI: 0.73–0.97;  $p = 0.02$ ) were significantly associated with ever use of e-cigarettes. **Conclusion:** These findings offer baseline evidence for developing targeted prevention and intervention programs for adolescents as well as to increase community awareness by involving schools and local organisations in addressing this issue.

Keywords: Electronic Cigarettes, Electronic Nicotine Delivery Systems, Adolescents, Prevalence, Associated Factors