

**UNIVERSITI TEKNOLOGI MARA**

**PERCEPTION OF E-CIGARETTE  
AND VAPE USAGE AMONG  
PARENTS, TEACHERS AND  
SECONDARY SCHOOL CHILDREN  
IN KUALA LUMPUR**

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## ABSTRACT

**Objectives:** i) To determine the demographics, prevalence & behaviour of cigarette and e-cigarette use among parents, teachers and secondary schoolchildren in Kuala Lumpur. ii) To assess parents', teachers' and school children's perception towards e-cigarette and awareness on anti-tobacco (including e-cigarette/ vape use) policies. iii) To assess the reasons contributing to e-cigarette smoking behaviour initiation. iv) To assess parents and teachers influence on children towards e-cigarette use and their perceptions

**Methods:** Using stratified random sampling, six public secondary schools were chosen (223 parents, 299 teachers, 240 school children) based on prevalence of smoker among school children from the KOTAK (Kesihatan Oral Tanpa Asap Rokok) 2019 data. An online survey was conducted and the link was distributed to Form 1 and 2 school children via parents-teachers and teachers official WhatsApp group. A self-administered questionnaire containing 32 questions adapted from TECMA 2016 (Tobacco and E-Cigarette Survey among Malaysian Adolescents) was used while descriptive statistics, chi-square test and logistic regression were used to analyse the data. **Results:** Among parents, e-cigarette user status (ever smoke) (AOR=0.75 95% CI: 0.08,0.33) and awareness of increased usage of e-cigarette among school children in Malaysia (AOR=3.41 95% CI: 1.49,7.77) while among teachers, ever tried smoking cigarette (AOR=0.43 95% CI: 0.22,0.86) were found to be a significant factor for perception of cigarette. E-cigarette user status (ever smoke) (AOR=0.08, 95% CI: 0.01,0.61) and awareness of tobacco-free policy at school (AOR=1.96 95% CI: 1.13,3.40) were found to be significant associated factors for the perception of e-cigarette among school children. **Conclusions:** Parents and teachers play an important role in influencing school children's smoking by cultivating them regarding the e-cigarettes' detrimental effects to empower them to recognize and be updated on the latest e-cigarette devices. There is a great need for school and parents to collaborate in order to prevent children from initiating e-cigarette use itself and to prevent e-cigarettes from serving as a gateway to future conventional cigarette smoking.

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# CHAPTER ONE

## INTRODUCTION

### 1.1 RESEARCH BACKGROUND

Tobacco smoking contributes one of the leading causes of mortality and morbidity among people around the world and it is also a major public health challenge worldwide. Each year, more than 6 million tobacco smoking related-deaths were reported and if the current worldwide smoking pattern does not change, more than 8 million deaths per year are predicted by the year of 2030 (WHO, 2011). Plethora of studies have shown that smoking is a learned behaviour and often begins during the adolescent years (Hopkinson, Lester-George, Ormiston-Smith, Cox, & Arnott, 2014; Kyrlesi et al., 2007; Robinson & Bugler, 2010). The younger the age of early initiation of tobacco smoking relates with the greater possibility of becoming a regular smoker and higher risk of getting diseases associated with smoking (Wilkinson, Schabath, Prokhorov, & Spitz, 2007).

In addition to the concerning use of regular cigarettes, the use of electronic cigarettes (e-cigarettes) or vape has become a phenomenon with increasing recognition and acceptance globally. With no exception, Malaysia is also facing a similar scenario. Although there are no concrete evidences and only limited researches on the long term health risks of vaping, as of October 2019, an outbreak has occurred in the United States in which more than 1500 cases of a severe lung disease, including 37 deaths, were associated with the use of vaping devices (CDC, 2019).

The International Tobacco Control Policy Evaluation Project (ITC Project) carried out surveys from 2009 to 2013 evaluating the usage of e-cigarettes in 10 countries (namely Malaysia, Korea, Australia, the United States, the United Kingdom, Netherlands, Canada, China, Brazil and Mexico). The highest e-cigarette user prevalence is Malaysia with 14%, while other countries such as Republic of Korea and Australia accounted 7%, the United States 6%, the United Kingdom 4%, Netherlands 3%, Canada 1%, and China 0.05% (Gravelly et al., 2014). The 2016 Global Youth Tobacco Survey (GYTS) revealed that the prevalence of e-cigarette use among school children (aged 13–15 years) was 2.3% in Cambodia and 3.2% in Malaysia (Jamalludin Ab Rahman et al., 2019; WHO, 2016). In Malaysia, electronic cigarette or vape use has