pISSN 2394-6032 | eISSN 2394-6040

## **Original Research Article**

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20192288

# Factors associated with knowledge, attitude and practice of e-cigarette among adult population in KOSPEN areas of Kuching district, Sarawak, Malaysia

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Received: 15 March 2019 Revised: 09 May 2019 Accepted: 10 May 2019

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#### **ABSTRACT**

**Background:** Smoking electronic cigarette is a current world phenomenon, however, the vaping community had ignorant about its health effects. Considering this view, this study was conducted to determine the level of knowledge and attitude toward e-cigarette and factors associated with it.

**Methods:** This cross-sectional study was conducted among adults in the KOSPEN locality in Kuching district. Six out of the 64 KOSPEN localities had been chosen randomly as study locations. Systematic random sampling with replacement method was used to select the respondent. A total of 354 adults were interviewed by face to face interview using adapted and validated questionnaire. The data entry and analysis were done by IBM SPSS Version 22.0. A p<0.05 was considered as statistically significant.

**Results:** Data revealed that 66% of the respondents admitted that they heard about e-cigarette. Among them 54.3% of the respondent had good knowledge about e-cigarette. However, more than half (52.8%) do not support the use of e-cigarette. Bi-variate analysis revealed that male gender and attitude towards supporting e-cigarette was significantly associated with practice of e-cigarette (p<0.05). However, for the conventional practice of smoking, age, gender, marital status, level of education and occupation found to be significantly associated with practice of conventional smoking.

**Conclusions:** Though the study did not depict the national scenarios of e-smoking and conventional cigarette smoking as well, but the factors identified in this study appeared to be policy options for the programme managers, health administration, and health educators designing the preventive programmes against e-smoking and conventional smoking.

Keywords: Attitude, Conventional smoking, e-Cigarette, Knowledge, Practice, Sarawak

### INTRODUCTION

E-cigarette has been marketed since 2003 and it has evolved with the advancement of technology, from the first design mimic the conventional cigarette to the machinery types cigarette. Basically, it consists of a battery as a power supply, a flow sensor, heating chamber (aerosol chamber/coil chamber) and solution called e-

liquid.<sup>2</sup> The mechanism of this devices is simple, where the user just needs to puff and then the flow will activate the e-cigarette. Subsequently the coil chamber will heat the solution to produce a vapour.<sup>2</sup> The speciality of e-cigarette is their e-liquid. The e-liquid not only contain nicotine, propylene glycol or glycerol but also has of flavouring agents such as mint, fruits and tobacco itself.<sup>3</sup> Besides that, there are potential substances or material