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# **Development of an electronic** cigarette use perception instrument for Malaysian adults



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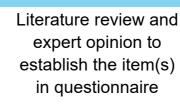
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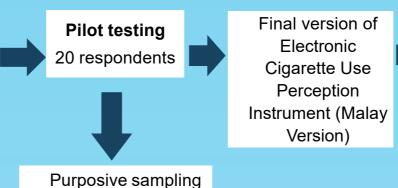
## Introduction

Electronic cigarette use has gained popularity among Malaysian adult smokers. Yet, there is limited research on adult perception of ecigarette use.

The aim of this study was to develop a tool to measure adults' perception of e-cigarette (EC) use called the Electronic Cigarette Use Perception Instrument (ECUPI)

# Methodology





Field Testing to establish construct validity (Explanatory and confirmatory factor analysis)

Reliability Analysis (Internal Consistency)

Sample size (n=1247) of adults aged 18 years and above



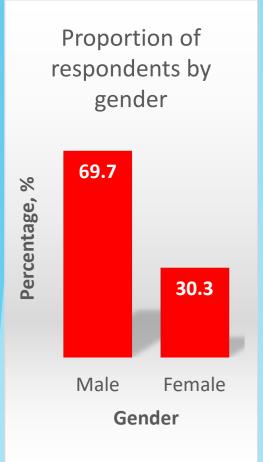
### **Inclusion Criteria**

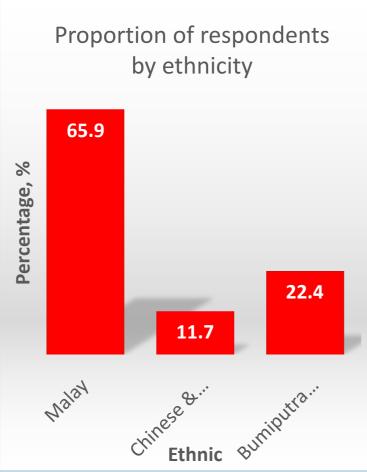
1. Malaysian Students 2. Permission from parents/guardian

3. Able to understand Malay

### Results

Data were collected from 1247 adults who participated in a hospital-based study in Malaysia, more than two thirds of respondents were male, a majority (65.9%) were Malay.





The ECUPI is comprised of 17 items reflecting perception associated with e-cigarettes, derived from extensive literature review and expert opinion.

The Content Validation index of ECUPI was 0.947 and Content validation index of 0.906,

## **Discussion and Conclusion**

The ECPT showed good validity and reliability for measurement of perception of e-cigarette use among adults in Malaysia and therefore a viable measure for assessing ecigarette perception among adults.

# Acknowledgements

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### Table 1: Construct validity and reliability of Malay Version of Electronic **Cigarette use Perception**

Construct one	Construct Two
Smokers are encouraged to use electronic cigarettes to help quit smoking	EC encourages non-smokers to try smoking
Family members should encourage smokers to switch to EC cigarettes as it is safer	EC should be regulated by law
EC is more effective than other types of smoking cessation therapy	EC should be banned in Malaysia
EC provided the same satisfaction level as cigarettes	Variety of flavors in EC promote non- smokers to try
The EC is chosen because it is cost-saving	Sharing EC with other users can cause infection
EC does not endanger the health of it user	
Electronic cigarette smoke / vapour does not harm others	
EC is the main method to quit smoking	
EC does not affect chronic diseases (e.g. Hypertension)	
Electronic electronics can be used in non-smoking areas	
EC is more accepted by people compared to cigarettes	
The EC can be inhaled as much as we like as it is not harmful on health	

Kaiser-Meyer-Olkin measure of sampling adequacy 0.810 Bartlett's test of Sphericity, Chi Square value=3415.54, df=66, p<0.001 Variance explained for construct 1 (4776%), construct 2 (15.71%) Internal Consistency for construct 1 (0.952), construct 2 (0.742)

### Reference

- 1. Jain S, Dubey S, Jain S. Designing and validation of a questionnaire. Int Dent Med J Adv Res 2016,2:1-3
- 2. Perialathan K, Rahman AB, Lim KH, et al. Prevalence and associated factors of ever use of electronic cigarettes: Findings from a hospitals and health clinics study based in Malaysia. Tob Induc Dis. 2018;16:55. Published 2018 Nov 23. doi:10.18332/tid/99258
  - 13th National Conference for Clinical Research 2020. 24-26 August 2020.