

A PERCEPTION STUDY ON E-CIGARETTE AMONG YOUNG ADULTS IN PERAK, MALAYSIA

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ABSTRACT

Electronic cigarette or e-cigarette was first introduced as an alternative for tobacco cigarette and a tool for smoking cessation. Unlike the regular, conventional cigarette, what the users inhale from e-cigarette is mainly vapor that has lesser or no chemical components. Therefore, while it may mimic smoking, e-cigarette is claimed to be safer and less risky. However, studies have been conducted to further explore e-cigarette and its potential to cause harm and its ability to reduce the number of smokers. E-liquid, as some studies discovered contains nicotine and harmful chemicals that are dangerous to health. This study was performed to understand the perceptions of young adults in Malaysia towards e-cigarette. The main objective is to find out if people use e-cigarette for reasons other than taking it as a substitute for tobacco cigarette or to quit smoking. Using questionnaire, a total of 97 students taking Interpersonal Communication course from Universiti Tunku Abdul Rahman (UTAR) Kampar, Perak have participated in the research. The results show that e-cigarette is not harmless to health and influences from others is the main reason that triggers one to vape.

Keywords: *E-cigarette, vape, tobacco cigarette, smoking, smoking alternative, smoking cessation.*

INTRODUCTION

What is E-cigarette

E-cigarette is defined as “battery-operated device that generate an aerosol for inhalation typically containing nicotine” (Ramo, Young-Wolff & Prochaska, 2014, p.142). It was invented back in year 2003 by a Chinese pharmacist named Hon Lik, who took the initiative to provide an alternative to smoking that is safer to people’s health. The act of using e-cigarette is called vaping, and it mimics smoking except that there is no combustion and the users inhale vapor instead of smoke (Cahn & Siegel, 2011). The vapor is released when a liquid (e-liquid) that normally contains propylene glycol and/or vegetable glycerin, nicotine and flavor concentrates, is heated (Pokhrel, Herzog, Muranaka, Regmi & Fagan, 2015). Other features of e-cigarette that make it so special and preferred compared to other non-tobacco smoking devices is the designs and specifications as well as the variety of flavours that enable the users to choose for their favourites (Scawen, 2015).

There are a varieties of e-cigarette that one can find in the market, but generally it can be grouped into three categories, which are cigalikes, eGos and mods, and is distinguishable based on looks and features. Cigalikes are models resembling conventional cigarettes in shape, whereas eGos, in addition to being larger in size than cigalikes, they are usually attached with removable ‘tank’ that can be refilled with nicotine-containing e-liquid, and compared to all three types of e-cigarette, mods are the largest and almost endlessly customisable (Zhu, Sun, Bannevie, Cummins, Gamst, Yin & Lee, 2014). With these features, e-cigarette turns into people’s new favourite smoking device, supported with a belief that it poses lesser threats and risks to their body and health.

E-cigarette in Malaysia

The popularity of e-cigarette has generated a mixed kind of reactions from the society. Some Malaysians viewed it positively, but still many demanded for the device to be banned in this country. Rizani Zakaria who is the vice president of the Malaysian E-Vaporisers and Tobacco Alternative Association (MEVTA) once mentioned that at some point, vape in Malaysia became out of control. E-cigarette and other products related to it are sold without knowledge, reachable by underage citizens and nonsmokers, consequently turning it into a new trend (Naidu, 2015). Because of these situations, some mechanisms including price control on e-cigarette products and the prohibition to sell nicotine by parties other than the pharmacists and registered medical practitioners are considered (Su-Lyn, 2015). In addition, the National Fatwa Council has announced that vaping is *haram* (forbidden) in Malaysia. Following that, some

states have started to ban e-cigarette, such as Johor, Kedah and Kelantan (Azura Abas, 2015).

With the absence of regulation, e-cigarette becomes hard to control. By December 2016, the cabinet has appointed three ministries to regulate the use of e-cigarette, which are the Ministry of Health (MOH), the Ministry of Domestic Trades, Cooperative and Consumerism (MDTCC) and the Ministry of Science and Technology and Innovation (MOSTI). These ministries are taking two years to complete drafting the new laws that will be used to control the selling, manufacturing as well as the labeling of e-cigarette devices and products (Bernama, 2016). In the process of setting up the regulation, data from empirical studies are required to assist the formation of laws and policies that will properly monitor any matters associated with e-cigarette in this country.

METHODOLOGY

Questionnaire

This research uses questionnaire for data collection. Divided into three separate sections, there are 34 questions in total and it includes Section A, Section B and Section C. In section A, the respondents were required to answer questions related to their demographic information such as gender, age, ethnicity, faculty and year of study. According to Piaw (2012), the questionnaire prepared must be appropriate for background and readiness of the respondents. Moreover, the questions must be clearly stated and not biased. For this study, all questions are in close-ended form. Meanwhile, Likert-Scale type was used for Section B and Section C, which cover questions pertaining to general perceptions on e-cigarette and reasons that trigger people to vape, respectively. For both sections, respondents were to state their agreement with the statements based on a five-point scale that ranged from strongly disagree to strongly agree. Among the advantages include the data collected has higher reliability and easy to be answered by respondents (Piaw, 2012).

Participants

Based on judgmental or purposive sampling, undergraduate students from four different faculties were selected as respondents for this research. They are specifically students from Faculty of Arts and Social Science (FAS), Faculty of Science (FSc), Faculty of Business and Finance (FBF) and Faculty of Information Technology (FICT) who registered for Interpersonal Communication (IPC) course at Universiti Tunku Abdul Rahman (UTAR), Kampar. From 103 students, 97 of them participated. The collection of data took place on 24th January 2018 in IPC class, where the respondents took approximately five to ten minutes to complete the questionnaire.

Data Analysis

Since this is a perception study that was designed to understand how young adults in Malaysia perceive e-cigarette and what they think triggers people to vape, a simple statistical analysis was performed. Based on descriptive analysis, the data was transformed into graphs and tables using Statistical Package for the Social Sciences (SPSS) version 24.0. Frequencies and cross-tabulation or crosstabs were specifically used to describe a single categorical variable and to describe the relationship between categorical and ordinal variables, respectively. With regard to results of the study, they only apply to subjects which are being studied and not generalized to other groups (Piaw, 2012).

FINDINGS

Demographic

This study was participated by 56 female and 41 male undergraduate students from various faculties in UTAR. Most of the respondents are 21 years old, with 31 of them, followed by 22 years old with 23 students, 23 years old with 20 students, 20 years old with 11 students, 24 years old with 11 students, 25 years old with three students, and 19 years old with two students. In terms of ethnicity, the largest group is Chinese with 93 students, followed by Indians with three students and only one Malay student. Equal number of participation came from FICT and FSC, with 31 students from each faculty, whereas there are only 18 and 17 students from FAS and FBF, respectively. The majority of respondents who participated are in Year Three, with 57 students, and others include Year Two with 28 students and Year One with 12 students.

General Perceptions on E-cigarette

In terms of awareness towards e-cigarette, 69% of respondents agreed that they know what e-cigarette is. However, only 3% of them strongly agreed that they have tried e-cigarette, and 2% strongly agreed that they want to try out the device. These findings may suggest that while awareness about e-cigarette is high among the respondents, only a few of them have experienced using the device and have intention to use it in future.

Interestingly, the study found out that the majority of respondents agreed that they have seen a woman and an underage using e-cigarette, with 44% and 33% respectively.

With regards to the effects of e-cigarette, the majority of respondents strongly disagreed with the statement 'e-cigarette is not harmful to health'. In total, there are 64% of respondents who showed disagreement towards the statement (Figure 1.0). Consistent

with this finding, 61% of respondents disagreed if e-cigarette does not contain harmful chemicals. In addition, 40% of the respondents disagreed that e-cigarette does not contain nicotine.

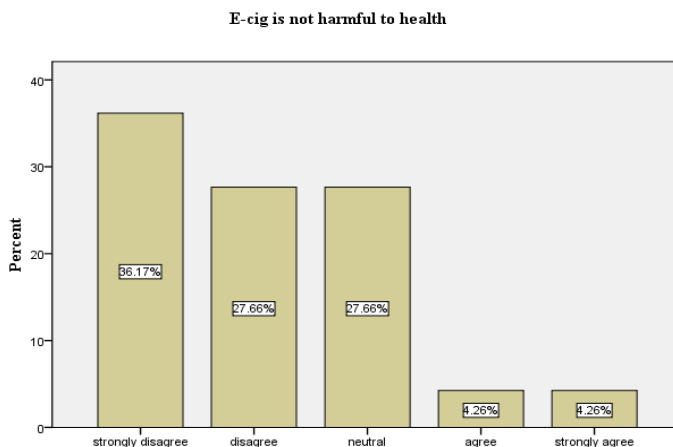


Figure 1.0: E-cigarette is not harmful to health

The respondents, however, were uncertain if e-cigarette is different from tobacco cigarette. Nearly 44% of them answered neutral to the statement ‘e-cigarette differs from tobacco cigarette’. Similarly, 45% of respondents chose neutral when asked if e-cigarette is safer than tobacco cigarette. Meanwhile there is an equal percentage between neutral and agree for statement ‘e-cigarette is cheaper than tobacco cigarette’. These findings show that respondents have poor understanding about how different e-cigarette could be from tobacco cigarette.

Another important finding is regarding to respondents’ perceptions about the effectiveness of e-cigarette as a smoking cessation tool. Even though the majority of respondents answered neutral, but when combined ‘strongly agree’ and ‘agree’, the percentage of respondents showing disagreement towards the statement ‘e-cigarette helps people to quit smoking more effectively’ is higher, with 53%. Whereas, there are only 12% of them who agreed with the same statement.

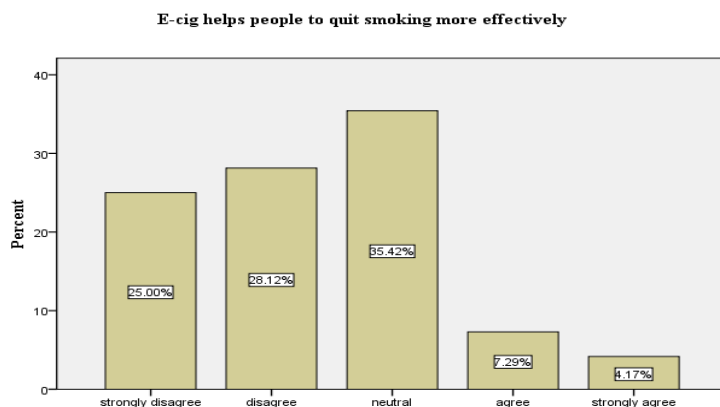


Figure 2.0: E-cigarette helps people to quit smoking more effectively

Perceptions on the Reasons for the Use of E-cigarette

Based on the research, the most agreed reason to why people vape is ‘influenced by others’, with 80%. On the other hand, only 19% of respondents agreed that people use e-cigarette because of the desire to quit smoking, subsequently makes it the least possible reason for vaping.

Furthermore, the respondents also considered ‘to follow trend’, ‘to try’ and ‘to look cool’ as the main reasons for vaping. The percentage for each reason is 77%, 74% and 73%.

This study also found out that 55% respondents agreed that people vape because they are looking for a substitute for smoking. Nevertheless, the percentage of respondents who agreed with the statement ‘people vape because they are looking for a healthier alternative’ is low, with only 33%. The highest response is neutral with 41%. This finding clearly shows that the respondents were not confident with the ability of e-cigarette to produce harmless effects compared to tobacco cigarette.

Differences between Gender and their Perceptions about E-cigarette

When comparing the two genders, this study found that female is more likely to perceive e-cigarette as harmful to health. There are 69% of females who disagreed with the statement ‘e-cigarette is not harmful to health’, compared to males with only 56%.

Female students were also found to have higher tendency to perceive that e-cigarette does not act as an effective smoking cessation tool. While there are 60% of female

respondents who disagreed that e-cigarette makes people quit smoking, the percentage of males who disagreed is 44%.

Differences also exist in their perceptions about the reasons for vaping. For males, the most possible reason that makes a person vape is ‘to look cool’, with 73%. On contrary, almost 86% female respondents perceived that people mostly vape due to ‘influence from others’ and ‘to follow the trend’.

The reason that receives highest disagreement among male respondents is ‘to quit smoking’, with 48.7%. Meanwhile for females, people vape because they like the flavours is the least possible reason, with 53.7% of them disagreed.

The contradicting perception between males and females regarding the reason also can be seen for ‘people use e-cigarette because they are looking for a healthier alternative’. Whereas the majority of male respondents disagreed, the majority of female respondents agreed. The percentage is 32% and 36%, respectively.

DISCUSSIONS

According to e-cigarette supporters, e-cigarette is harmless and vaping is not as risky as smoking tobacco cigarette. The e-liquid used for vaping is claimed to contain ingredients that are used largely by food industries such as propylene glycol or glycerins, which means the device is totally safe for consumption. In addition to that, the fact that e-cigarette mimics the sensation of smoking very closely means that it can provide an alternative to conventional cigarettes and be of tremendous benefits for smokers in quitting or reducing their tobacco consumption (Voigt, 2015).

However, some studies indicate contradicting results that defy e-cigarette as harmless. Bullen (2014) argued that e-cigarette may be as hazardous as the conventional cigarettes because its refill solutions, cartridges, aerosols and environmental emissions are not intoxicants. There are potential harmful compounds found to be used in e-cigarette including aldehydes, ultrafine particles and aerosolised nicotine (Kolar, Rogers, Hooper, 2014). Furthermore, nicotine addiction is a possible outcome of e-cigarette consumption, which may further impact the nervous system and the cardiovascular system, and may lead to significant withdrawal symptoms (Klein, 2015).

Similarly, the evidences that could support e-cigarette as being an effective smoking cessation tool are also considered lacking and insufficient (O’Loughlin, 2014). In many cases, e-cigarette turns a person into a dual smoker. According to Ramo, Young-Wolff

and Prochaska, (2014), e-cigarette exposes smokers to higher level of nicotine and increases their dependent on it, and as a result, their chances and attempts of cessation will either reduced or delayed.

In many countries, vaping has becoming a trend whereby youngsters and women who never smoked before were found to be using e-cigarette (Yap, 2015). In this case, to quit smoking and to use a device safer than tobacco cigarette are not the possible motives for vaping.

As mentioned by Chapman & Wu (2014), “reasons for e-cigarette use may differ among different age groups” (p.52). The fact that the respondents are young adults with age 25 years old and below may influence their perceptions about what trigger people to use e-cigarette. To follow what friends and older siblings do (Mendoza, 2017), and attracted by the way e-cigarette is priced and promoted, besides wanting to try the different flavours of e-liquid (Kozlowski, 2015) are among popular reasons given by adolescents upon asking why they vape. However, there are teenagers who suffered from substance addiction such as marijuana and tobacco cigarettes, therefore, in this case, e-cigarette is used as a substitute to those products (Tavernise, 2015).

A study by Pineiro et al. (2016) was aiming at identifying gender differences among e-cigarette users in patterns of use, reasons for initiation and maintenance, and outcome expectancies regarding e-cigarette. The study found out that males were more likely to report initiating e-cigarette use to quit smoking due to health concerns, whereas females were more likely to report initiation based on recommendation from family and friends. This result matches the finding of this research, whereby the largest number of females believed people vape due to influences they received from others.

CONCLUSION

E-cigarette is neither a safer alternative nor an effective tool for smoking cessation, as perceived by undergraduate students of UTAR. They also disregard the reason for people’s consumption of e-cigarette as to substitute it with tobacco cigarette or to quit smoking. For most of them, people vape because they are influenced by others. To follow trend, to try, and to look cool are other primary reasons for vaping. In addition to that, the respondents do not find e-cigarette as a device that is distinguishable from tobacco cigarette in terms of its effects and functions.

It is important to understand how society sees and perceives e-cigarette. The claims about the benefits of e-cigarette could be misleading, especially for the young people

such as adolescents who are easily influenced by the information they get and by the behaviour of others. Other than perception studies, a more focused and detailed research that explores the issue of e-cigarette based on the experiences of the individual vapers could be performed. Subsequent studies on e-cigarette also may want to look at the issue from a different angle, perhaps from the views of the policy makers or the people who are in the industry such as the sellers or the organisations that operate behind the scene.

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