

Factors Shaping E-cigarette Use and Perceived Effects among Youth in La Trinidad

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Abstract:

This study examines the factors influencing e-cigarette use among youth while exploring how it influences the users and their perceived effects given the rising e-cigarette consumption among young individuals. The research focuses on youth residing in La Trinidad, Benguet and employed qualitative research design as well as used semi-structured interviews for the data gathering. Through thematic analysis of interview responses, findings reveal that peer pressure, family tolerance, and societal acceptance contribute to e-cigarette experimentation. Media platforms including TikTok, as well as influencer endorsements also play a significant role. Additionally, youth e-cigarette usage continues to rise because of psychological factors including stress relief and convenience while curiosity, safety misconceptions and cost-efficiency also impact their decision. Their perceived effects on the other hand, includes addiction manifested with cravings and difficulty in quitting as well as viewing it as safer alternative compared to traditional cigarettes. Lastly, some youths use e-cigarettes deeming it as stress management tool while certain users reported fatigue and breathing difficulties. The findings aim to provide insights for policymakers and other concerned agencies as well as guide them in crafting effective interventions and policies to reduce e-cigarette use among youth.

Key words: E-cigarette use, influencing factors, perceived effects

Introduction:

Smoking remains a problem in many societies today and one of the leading causes of preventable death worldwide with over 8 million deaths attributed to it yearly including 1.2 million from secondhand smoke exposure (World Health Organization, 2023). And while tobacco and cigarette use has been a public health concern especially among the adults, a shift towards a new form of smoking has been observed among the youth. We can see that method of smoking is now changing, with the decline of cigarette smoking among youth and increase in the use of e-cigarettes.

With 86.1 million users in 2022, electronic cigarette use becomes a rising problem impacting public health and societal norms. E-cigarettes, also known as electronic nicotine delivery systems (ENDS), have gained popularity due to the belief that they are less harmful than conventional smoking methods and appeal to a wide range of people (Kalkhoran & Glantz, 2016). These devices simulate smoking by producing vapor instead of smoke, heating a liquid that users inhale (Iavarone, 2024).

International and local surveys further reveal the increasing trend in e-cigarettes use. In 2020, there were an estimated 68 million e-cigarette users

worldwide, which increased by 17% to about 82 million in 2021 (Global State of Tobacco Harm Reduction, 2021). This number continued to rise, reaching 86.1 million users in 2022, with predictions of further increases in the coming years (Samaritas, 2023). The increasing popularity of smoking is also evident among Filipino youth. In 2021, 2.7 million Filipinos, or around 3% of the world's e-cigarette users, were using electronic cigarettes (Ruperez, 2022). These data suggest a shift from traditional tobacco smoking to e-cigarette use among the younger population.

With the increasing statistics of e-cigarette users worldwide, it is also quite alarming to note that the main users are the youth. For instance, a national survey in Australia found that approximately half of individuals aged 18-24 (49%) had used e-cigarettes or vapes at some point, and 1 in 4 individuals aged 14-17 (28%) had done the same (AIHW, 2023). Similarly, the U.S. Centers for Disease Control and Prevention (CDC) reported that 2.55 million U.S. middle and high school students used e-cigarettes in 2022.

Meanwhile, in the Philippines, findings from the Global Youth Tobacco Survey 2022 indicate a significant rise in electronic cigarette usage among Filipino youth, soaring by 110% over four years, from 11.7% in 2015 to 24.6% in 2019. Later, in 2021, data from the Philippine Pediatric Society showed that 11 percent of students ages 10 to 15 years old already tried vapes (Philippine News Agency, 2023). These surveys show that as early as 10-year-old, Filipino children are already trying e-cigarettes which shows the need of attention from various agencies concerned.

The rise in e-cigarette use among youth is a significant concern due to its potential health implications. The World Health Organization (2021) has called for actions to prevent the uptake of e-cigarettes, stressing their potential harm to both smokers and non-smokers. E-cigarettes actually led users to nicotine which can lead to addiction and potentially harmful chemicals such as formaldehyde and acrolein (NASSEM, 2018). This is supported by Wang (2024) revealing that a disposable e-cigarette contains 800 mg of nicotine

while a typical cigarette has 11 mg of nicotine indicating that it has higher nicotine content. E-cigarette aerosols also contain particles that can harm lung health and raise cardiovascular risks (Park et al., 2022). These findings show that e-cigarette use can greatly impact our health similar to those regular cigarettes and therefore, need the same attention.

Several researches were conducted worldwide to identify the factors influencing e-cigarette use to understand this problem further which has struck the current generation. Some of these studies reveal different factors varying from advertising campaigns (Lee et al., 2013), sensory and flavor appeal (Zhao, et al., 2023), and normative beliefs (Struik et al., 2023).

The study of Lee et al. (2013) in South Korea used logistic regression to explore how advertising campaigns portraying e-cigarettes as a cessation aid encourage use among youth. And though the study looks at the bigger picture by showing the trends, it doesn't dive into why the youth were influenced to engage on such marketing. A qualitative approach could provide a deeper understanding of the personal attitudes and feelings of youth towards these products, addressing the gap left by this quantitative analysis.

Meanwhile, a study of Zhao et al. (2023) in Shanghai also reveals that the factors influencing e-cigarette among their youth includes appealing scents and variety of flavors making e-cigarettes attractive to young people. Using interview and questionnaires as their method, keywords were extracted from the interview data and analyzed by the Colaizzi seven-step method. While this study combines numbers and personal insights which may uncover in-depth information, the focus was on group interviews, which might not capture the full depth of individual experiences since some youth may feel hesitant to express their opinions in group settings.

Furthermore, a study of Struik et al. (2023) in Canada employed the Unified Theory of Behavior (UTB) and result shows that there is a relationship

between positive beliefs and self-concept in using e-cigarettes among youths. Believing that using these e-cigarettes products enhances their confidence and standing from their peers encourage them to use it. Using the UTB framework, the research was able to examine a range of psychological and social factors that helps provide a fuller picture of vaping behavior. This is indeed a good framework to explore in-depth researches, however when dealing with local community, a broad theory might not work. A qualitative approach can be appropriate as it allows for a personal perception contributing to a deeper understanding of what is being explored.

On the other hand, in the Philippines, there are limited researches found on the factors influencing the e-cigarette use among the youth. Prevalent researches in the Philippines on smoking are centered on tobacco and cigarette smoking and there are limited qualitative studies on e-cigarettes indicating the need for this research. The National Library of Medicine (2023) also stated that the most recent nationwide study on youth cigarette use in the Philippines was the 2019 Global Youth Tobacco Survey which consists of surveys utilized to assess the number of e-cigarettes users but lack in-depth studies such as understanding the factors influencing the youth. This directs incomplete updated studies and localized insights on the emerging vaping behaviors among the Filipino youth. To better understand e-cigarette, use among youth, local studies should be prioritized, especially within the Department of Health's research agenda. Given also the evolving nature of youth consumption habits, research must reflect both national trends and the specific needs of local communities to inform effective public health strategies.

Thus, the researcher would like to conduct this research in a specific setting in the Philippines uncovering the factors that influence their use and how the youth perceive its effect to help understand the increasing trend of e-cigarette use in the country. Using qualitative method, this research reveals deeper insights not captured in surveys and numerical data. This will specifically

help our lawmakers to create effective intervention strategies as they can now understand the root causes of this problem. This, in turn, will help improve the health and well-being of the youth in the country.

Methodology:

The researcher used qualitative research design as this aims to understand how people experience the world, tending to be flexible and focus on retaining rich meaning when interpreting data making it suitable for the study (Bhandari, 2020). It also followed interpretivism philosophy wherein it focuses on the meaning and interpretation of the respondent's narratives through interviews (Myers, 2008).

The research was conducted in La Trinidad, Benguet which is home to many high schools and higher education institutions hosting a large population of youth. There are 12 participants selected through criterion sampling. According to Guest et al. as cited by Bekele, W. B. & Ago, F. Y. (2022), 6-12 interviews are enough for one qualitative research project. Participants were chosen if they met the two criteria: they are residing in La Trinidad and having used e-cigarettes.

The researcher used a semi-structured interview as a data gathering instrument because it will guide the researcher to stay on track during the interview but will still allow her to be flexible depending on the responses of the interviewees. Moreover, data collected from the interviewees was subjected to further analysis using thematic analysis. Ethical considerations were prioritized throughout the methodology of this research. Upon obtaining approval, informed consent was sought from all participants, and from legal guardians if participants are minors. Confidentiality was strictly maintained, ensuring that all collected information is anonymized. Participants were also informed that they may withdraw from the study at any time if they feel uncomfortable without any consequences.

Results and Discussion:

In this chapter, the results of the study are presented and discussed with reference to the aim

of the study, which was to determine the factors that shaped youth e-cigarette use and what are the perceived effects of e-cigarette use among youth.

Factors That Shaped Youth E-Cigarette Use

E-cigarette use among youth and young adults has emerged as a significant public health issue. This part now discusses the factors influencing e-cigarette use among the youth. These factors include social influence, media and marketing influence, individual psychological factors and other factors.

Social influence

Peer influence encourages e-cigarette use among youth as they seek to fit in with their group of friends and encouraged by their friends. One respondent specifically mentioned that a desire to belong to his group of friends led him to start vaping. As he stated, he is the only one among his friends who is not smoking that is why he also tried using it. In this statement, it shows that young people are influenced by their peers who use e-cigarettes as they seek to fit in and feel a sense of belonging. Seeing their peers buying and using e-cigarettes encourage them to do the same. As stated by Cavallo et al., (2019), cool social image and fitting in within group of friends play a significant role in the appeal of e-cigarette among the youth as they stay with them for long period of time, enabling them to be influenced by their friends.

Furthermore, the influence of family also encourages them to use it. As narrated by one respondent, his uncles are long time smokers and when he also started smoking, he was not scolded by his family making him think that it is okay to smoke. In addition to this, social reception also contributed in influencing e-cigarette use among youth. As detailed by a respondent, she feels that they were not openly scolded when they use e-cigarettes compared to when they are using regular cigarettes. We can see from this events that the society perceive e-cigarette better than regular cigarettes making it a popular choice among the youth. This is supported by the research of Roditis et al., (2016) explaining that e-

cigarettes are viewed as more socially acceptable than traditional cigarettes because of their smell leading to increased experimentation and use among youth.

Media and Marketing

Media and marketing are also one of the top promoters of products as it covers the strategies and channels used to promote products and influence consumer behavior (Zhang, 2023). The presence of these strategies has also influenced the youth to use e-cigarettes. As mentioned by one of the respondents, he has seen many advertisements in Tiktok and social media influencers promoting it which encourage him to try smoking. Similarly, a study of Zhao et al. (2023) in Shanghai also reveals that exposure to e-cigarette information and sales online increased the likelihood of adolescents using e-cigarettes especially WeChat, where an increasing number of adolescents were also purchasing e-cigarettes. Adding to this, another respondent shared that she was encouraged to try because of the engaging content about e-cigarettes especially its different flavors, design and variations. Social media campaigns often feature engaging content, such as videos, images, and testimonials from influencers, making e-cigarettes appear trendy and appealing (Smith et. al., 2023). These findings signify the role of social media in promoting e-cigarettes among the youth as they are usually active in social media, making them exposed to these advertisements and marketing strategies. This in turn, result to their purchase and experimentation on e-cigarettes.

Individual Psychological Factors

Result also reveals that individual psychological factors further shape e-cigarette uses among youth. As defined by Zuckerman (1994), psychological factors are internal characteristics and processes that influence a person's thoughts, emotions, and behaviors. One of the respondents have shared that e-cigarette helps him to manage his stress. As he mentioned, this helps him in releasing stress and make him feel relaxed. Likewise, a study of Kong et al., (2015), shows that one of the most common reason for e-

cigarette use among youth is for stress relief as they see it effective. This means that youth use e-cigarettes because they perceive them as helpful in relieving stress. This belief is particularly prevalent among adolescents who are coping with various pressures such as in their studies, social challenges, and personal issues that pushes them to smoke. Lastly, curiosity among youth towards e-cigarettes also led them to use it. Curiosity about e-cigarette capabilities, flavors, and social aspects motivates adolescents to experiment using it. As narrated by one of the respondents, she tried using e-cigarettes due to curiosity and bought one to try it. Upon trying, she continued smoking until now. Similarly, a study of Margolis et al., in 2014 among the youths of United States further shows that curiosity is a potential risk factor for e-cigarette use in the recent years. This inhibits that curiosity can lead the youth to experimentation just to satisfy their curiosity which can be cause by social media and observations in the society. Upon exploration, they now become potential users.

Sensory Appeal

Another factor that shapes e-cigarette use among youth includes sensory appeal. As mentioned by one of the respondents, he stopped using tobacco cigarette and shifted to e-cigarettes as it does not smell bad compared to traditional cigarettes. Its fragrance makes it favorable compared to tobacco cigarettes that has strong smell as most people don't not like it. Moreover, e-cigarettes become appealing because it has many flavors wherein, they can choose from. Particularly, flavors such as fruit, candy and mint attract young users. A case control study in Shanghai by Zhao et al., (2023) shows that a noteworthy factor influencing e-cigarette among their youth includes appealing scents and variety of flavors making e-cigarettes attractive to their young people. Thus, we can derive from this that flavor and fragrance has an appeal to young smokers, encouraging them to try it.

Convenience of Purchase

Results further shows that convenience of purchase encourages e-cigarette use. As detailed

by a respondent, it is easier for him to access e-cigarettes compared to traditional cigarettes wherein they need to buy it in stores that prohibits minors in purchasing it. Tiktok shops has given them convenience in acquiring e-cigarettes as their age are not verified and can easily purchase this product. This convenience factor reduces barriers to access among youth who may not have easy access to traditional cigarettes. According to Meehan et al., (2024), easy accessibility has significantly contributed to the increasing use of vapes by young people along with marketing of cigarette companies, strong social media presence, and attractive flavors. In particular, less stringent age verification processes in online stores makes it easier for minors to purchase e-cigarettes compared to traditional tobacco products. This convenience factor shows that it has a meaningful influence in e-cigarette purchase and use among youth.

Affordability

Affordability also influence e-cigarette use among youth as they can afford to buy it and can last longer than the traditional cigarettes. One of the respondents shared that she stopped smoking tobacco cigarette and shifted to e-cigarette because it is less expensive. Upon her calculation, one e-cigarette may cost Php 500 and it can last around 12-15 days. As for the regular cigarette, one pack is estimated to cost around Php 150 and it can be used for 2-3 days only. In a study conducted also by Wang et al. (2018), they compared the costs of e-cigarettes versus traditional cigarettes over a year and they found out that e-cigarettes have lower initial costs and also last longer. This supports that cost efficiency of e-cigarettes led youth to purchase it as better alternative compared to regular cigarettes.

Misconceptions

Additionally, misconceptions about e-cigarettes further encouraged the use of e-cigarette among youths as this give misinformation about their effects in the body. For instance, a respondent shared that his friends told him that it is not harmful because it has controlled tobacco content

compared to the tobacco cigarette and has fruit flavors. In a study also of Golan et al., (2023), it shows that majority of their respondents perceive that e-cigarette is less harmful than regular cigarettes. This indicates that misconceptions about e-cigarettes further influence youth to choose it as an alternative relying on their beliefs that it is less harmful than the others.

Perceived Effect of E-cigarette use among Youth

This section seeks to explore into the perceptions young people hold regarding the effects of e-cigarette use. It aims to uncover their perspectives on how vaping influences various aspects in their life such as their health, social interactions, and others.

Addictive

One of the perceived effect of e-cigarettes among youth is addiction. As shared by one of the respondents, having tried e-cigarette, she can't already take the smell of regular cigarette. After some time, she tried to stop using it but her body is craving for it. This indicates possible addiction in using e-cigarettes. According to the National Institute on Drug Abuse (n.d.), tobacco and e-cigarettes devices contain nicotine, a substance known to cause addiction, making it challenging for individuals who smoke or vape to quit. Meanwhile, Wang (2024) revealed that a disposable e-cigarette contains 800 mg of nicotine while a typical cigarette has 11 mg of nicotine which indicates that it has higher nicotine content thus more risk in addiction. Due to the temporary nature of nicotine's effects on the body, the initial surge of feel-good chemicals fades quickly. Within hours, nicotine withdrawal can set in, characterized by cravings to vape again. Due to this cycle, many users mistakenly believe that smoking either tobacco and e-cigarette products can alleviate stress or anxiety (Truth Initiative, 2022).

Less Harmful

Another apparent perceived effect of smoking e-cigarette is that it is less harmful or it is safer compared to regular cigarettes. As directly stated

by one of the respondents, she prefers e-cigarettes as she deem it as safer compared to the traditional ones. We can infer from this that youth perceive e-cigarettes as having fewer harmful effects compared to traditional cigarettes. This perception can be generated from misconceptions they share with their friends and the society as a whole. As a result, young people may be more inclined to experiment with e-cigarettes, believing them to pose less harm to their health. This is reinforced by Villante et al. (2017) stressing that perception that e-cigarette as less harmful influence youth's willingness to try e-cigarettes, viewing them as a safer alternative.

Stress management tool

Another commonly perceived effect of e-cigarette use among young people is its effectiveness in relieving stress. Many youths view vaping as a way to manage stress and anxiety, often turning to e-cigarettes during challenging or stressful situations. Most of the respondents shared that when they feel stressed, they use e-cigarettes and feel relaxed after. According to Truth Initiative (2022), in the immediate term, the act of vaping nicotine can induce a sense of pleasure and relaxation by triggering the release of dopamine, a neurotransmitter associated with feelings of well-being in the immediate term which serves as a temporary diversion from stress-inducing circumstances. This explains why some respondents share that they feel relaxed after smoking. However, these chemicals won't last long. According to Wang (2024), within just a few hours, the effect of nicotine in the body wears off and can lead to a desire to vape again.

Negative Health Consequences

Respondent also shared that smoking e-cigarette have resulted to health problems among them. One of the respondents shared that after some months of using it, he observed that he easily gets tired and feel out to breathe when walking long distances which is not his common experience. This experience shows that there are also perceived negative effects of smoking e-cigarette in the health. According to Broderick, S. R., M.D.

(n.d.), frequently included in flavored e-liquids to enhance taste is diacetyl which can cause inflammation and potentially result in permanent scarring of the smallest airway passages, which is why users experience shortness of breath and difficulty in breathing. This points out that smoking e-cigarette has also negative consequences in the health of its users.

Conclusions:

Base on the findings, the following conclusions were drawn:

1. E-cigarette use among youth is influenced by many factors. One of these is social influences which includes peer pressure, family tolerance, and societal norms that encourage acceptance of e-cigarette usage. Social media and marketing further increase the desirability of e-cigarettes, portraying them as trendy and appealing. Psychological factors, especially stress relief, also contribute to the rise in youth vaping, as many see e-cigarettes as a means to cope with emotional pressures. In addition, curiosity, ease of access, appealing flavors, affordability, and misconceptions about the safety of e-cigarettes further contribute to their adoption. These factors combine to make e-cigarette more attractive and accessible choice for youth compared to traditional cigarettes. Understanding these factors will guide local government units in crafting policies particularly in online platforms and social media where the youth are exposed to e-cigarette advertisements and led them to have easier access on e-cigarette products. Regulations on labeling the e-cigarette liquid should be enforced to ensure that consumers are aware of the concentration of nicotine as well as the other ingredients added to the liquid should also be specified.

2. A combination of social acceptance, media portrayal, and personal factors enables the widespread use of e-cigarettes among youth. The desire to belong to a peer group, the normalization of e-cigarette usage within families and society, and the influence of social trends all play a role in encouraging youth to vape.

3. Young users perceive e-cigarettes as addictive and difficult to quit. Additionally, they see e-cigarettes as helpful for stress management and believe they are less harmful than traditional cigarettes given its smell and flavor. However, some youth also report experiencing negative health effects, such as fatigue and breathing difficulties which in turn shows the potential risks associated with e-cigarette use despite the perception of reduced harm compared to tobacco cigarettes. These perceptions of the youth indicate the need for cessation programs to help the youth in quitting e-cigarette use. It also calls on stronger health campaigns to combat misconceptions as well as school and community programs for stress management activities that will help the youth to be informed and fight usage of e-cigarettes.

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