

Impact of electronic cigarettes on public health

Mercy Kaondera-Shava¹, Dr. Ghassan Salibi², Prof Nikolas Tzenios³

¹ Kursk State Medical University, ^{1 2 3} Charisma University

Abstract:

This comprehensive research paper investigates the impacts of electronic cigarettes on public health, focusing on young adults. It examines both the short-term and long-term health effects of electronic cigarette use, exploring potential health risks and benefits, as well as the influence of electronic cigarette marketing on public health. The study uses a combination of literature review, questionnaires, surveys, and interviews with e-cigarette users and healthcare professionals. Findings suggest that while e-cigarettes might be less harmful than traditional cigarettes, they are not risk-free and are associated with various health issues such as cardiovascular disease, respiratory problems, and potential addiction. The paper highlights the significant role of marketing in promoting e-cigarette use among young adults and raises concerns about e-cigarettes as a gateway to tobacco use. Recommendations focus on regulating e-cigarette marketing, implementing age restrictions, conducting further research, and increasing awareness, especially among young adults. This research contributes to the growing body of knowledge on e-cigarettes and aims to inform public health policy and practice.

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Abstract

This comprehensive research paper investigates the impacts of electronic cigarettes on public health, with a particular focus on young adults. It examines both the short-term and long-term health effects of electronic cigarette use, exploring potential health risks and benefits, as well as the influence of electronic cigarette marketing on public health. The study uses a combination of literature review, questionnaires, surveys, and interviews with e-cigarette users and healthcare professionals. Findings suggest that while e-cigarettes might be less harmful than traditional cigarettes, they are not risk-free and are associated with various health issues such as cardiovascular disease, respiratory problems, and potential addiction. The paper highlights the significant role of marketing in promoting e-cigarette use among young adults and raises concerns about e-cigarettes as a gateway to tobacco use. Recommendations focus on regulating e-cigarette marketing, implementing age restrictions, conducting further research, and increasing awareness, especially among young adults. This research contributes to the growing body of knowledge on e-cigarettes and aims to inform public health policy and practice.

Keywords: electronic cigarettes, impacts, young adults.

Impact of electronic cigarettes on public health

Project Definition

This research project focuses on the impacts of electronic cigarettes on public health. It aims to examine the long term and short term health effects of electronic cigarettes, potential health risks and benefits, as well as the impact of electronic cigarettes marketing on public health. It also explores the potential benefits and drawbacks of electronic cigarettes as a smoking cessation aid.

Final project overview

Electronic cigarettes are a diverse group of products that produce a heated aerosol, typically containing nicotine, which users inhale via a mouthpiece. Common components of e-cigarettes include a battery, heating coil, atomizer that transforms the e-liquid to an aerosol, cartridge that contains the e-liquid, and mouthpiece. Each component has the potential to affect health outcomes independently. They may also interact to create an influence different from the sum of their individual parts, posing a challenge for research in this field (“Public Health Consequences of E-Cigarettes,” 2018).

A thorough review of the literature on electronic cigarettes and their impact on public health has been conducted throughout the research. My findings suggest that while electronic cigarettes may be less harmful than traditional cigarettes, they do have their risks to a certain extent. Electronic cigarette use has been linked to cardiovascular disease, respiratory problems, and ontological problems. Additionally, the marketing and promotion of electronic cigarettes, particularly to youth, raises concerns about their potential to serve as a gateway to tobacco use.

Through questionnaires, surveys and interviews with e-cigarette users and healthcare professionals, I collected primary data. My findings indicate that many electronic cigarette users perceive them as a harm reduction strategy, but there is still a significant lack of awareness regarding the potential risks associated with their use. Healthcare professionals report mixed feelings about electronic cigarettes, with some seeing them as a potential harm reduction strategy for smokers who are unable or unwilling to quit smoking altogether, while others are concerned about their potential health risks and the impact of electronic cigarette marketing on youth. There is a concern on how best to regulate electronic cigarettes in a way that balances public health concerns with individual choice and harm reduction strategies.

Updated research summary

Electronic cigarette use has gained popularity among young adults, leading to concerns from family members and educators. Millions of Americans use e-cigarettes. Despite their popularity, little is known about their health effects, and perceptions of potential risks and benefits of e-cigarette use vary widely among the public, users of e-cigarettes, health care providers, and the public health community (National Academies Press (US), 2018). The research is aimed at examining the impacts of electronic cigarettes on public health. The research was conducted at Kursk State Medical University as its main focus is the young adults. The schools administration also contributed to the success of this research by assisting and allowing the conduction of a lecture.

This research is important because there is not much research on the impacts of electronic cigarettes on public health. Awareness needs to be raised amongst young adults. This research is also important so as to gain knowledge on the short term and long term effects of electronic

cigarettes and hence prevent any negative health effects in the future. There is a gap in the knowledge regarding this topic hence this research will help gain more information through surveys, interviews and questionnaires. Electronic cigarettes are also viewed as having beneficial impacts. Some individuals use them as an alternative to traditional cigarettes which are much more harmful. Marketing and advertisements play a huge role in the initiation of electronic cigarette usage. Electronic cigarettes are marketed as less harmful and with different flavourings hence getting the attention and attraction of young adults. Peer pressure also plays a role.

The objectives of this research are to encourage young adults to stop the use of electronic cigarettes as it can impact their health in future. Advertisements that market electronic cigarettes to the young adults should be banned. Another objective is to assess the various competing views on the impacts of electronic cigarettes on public health, make recommendations to improve research and highlight gaps that are a priority for future research (National Academies Press (US), 2018). From the results of the surveys, questionnaires and interviews, we can safely say marketing of electronic cigarettes as well as influence from friends has played a huge role in the initiation of use of electronic cigarettes. Most users use electronic cigarettes because of the popularity that has risen as well as it being seen as the new cool thing amongst young adults

Project implementation summary (action steps taken)

1. Literature review: I conducted a thorough review of existing literature on electronic cigarettes and their impact on public health using academic databases such as PubMed, Scopus, and Web of Science. I also reviewed reports from organizations such as the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC).

2. Survey design: I developed a survey questionnaire on Google Docs. The survey included questions on demographics, reasons for using e-cigarettes, perception of risks associated with e-cigarette use, awareness of regulation surrounding e-cigarettes, and attitudes towards traditional cigarette smoking.

Table 1. List of questions of the electronic cigarettes questionnaire

	Questions	Answer options
1.	Age	
2.	Gender	male/female
3.	Do you know what vaping is?	yes/no
4.	How did you find out about vaping?	from friends from neighbors from parents from older brothers/sisters from acquaintances Advertisement other options

5.	Have you tried vaping?	yes/no
6.	If so, how often do you vape?	Once a day Once a month several times a month 1 time in a lifetime on occasion (parties, birthdays)
7.	Why do you do vaping?	relieves stress brings pleasure gives confidence raises authority it's "hype" other options
8.	Do your parents know that you are vaping?	yes/no
9.	Parents' attitude to vaping	support

		tolerant indifferent they forbid other options
10.	In your opinion, do you have a vape addiction?	yes/no
11.	Do you think it is possible to get rid of vape addiction?	yes/no
12.	If so, in your opinion?	
13.	In your opinion, vaping has an impact on:	breathing cardiovascular nervous sexually endocrine system
14.	In your opinion, what diseases can vaping cause?	bronchitis tuberculosis

		chronic lung diseases cardiovascular system diseases Hepatitis C AIDS Your other answer
15.	Have you noticed a deterioration in your health after vaping?	yes/no
16.	If so, what was the deterioration?	sore throat sing dizziness loss of appetite deterioration of sleep loss of consciousness other symptoms

17.	Have adults discussed the issue of vaping with you?	yes/no
18.	If so, who exactly?	parents teachers passers-by Friends
19.	Have you tried to leave the vaping?	yes/no
20.	What prevented you from trying to fail?	
21.	In your opinion, does vaping increase efficiency?	yes/no
22.	Where do you get vape money?	
23.	How much money per month do you spend on vaping?	
24.	Did you invite someone to vape?	yes/no

3. Interview design: I developed an interview guide using open-ended questions related to experiences with electronic cigarettes, opinions regarding their safety compared to traditional cigarettes, attitudes towards regulation surrounding electronic cigarettes, and opinions regarding the role of electronic cigarettes in tobacco harm reduction strategies. With the help of the school administration, we conducted semi-structured interviews during a lecture via Zoom and in person.

Project analysis, evaluation and recommendations

Electronic cigarettes have gained immense popularity in recent years as a smoking cessation aid and a healthier alternative to traditional cigarettes.

During the conduction of the research, I made some major findings:

1. Electronic cigarettes contain toxic chemicals: While electronic cigarettes are marketed as a safer alternative to traditional cigarettes, they still contain toxic chemicals which can cause respiratory problems, cancer, and cardiovascular diseases. Some students who have been on long term use have reported some minor effects. Risk of nicotine addiction has also increased as some use electronic cigarettes daily and cannot go without use.
2. Electronic cigarettes use increases the risk of smoking traditional cigarettes. Multiple students started with electronic cigarettes and transitioned to traditional cigarettes. This supports the

studies that have shown that electronic cigarette use is associated with an increased risk of smoking traditional cigarettes among adolescents and young adults.

3. Electronic cigarettes use has help some people to quit smoking. However, more research is needed to confirm these findings and determine the long-term effects of e-cigarette use on quitting smoking.

4. Electronic cigarettes marketing is misleading: The marketing of electronic cigarettes often portrays them as a harmless product, which can lead to misinformation and misconceptions about their health impacts. This has resulted in increased usage and addiction among users.

Recommendations:

1. Regulate electronic cigarette marketing: Governments should regulate the marketing of e-cigarettes to ensure that they are not marketed as a harmless product. This can include restrictions on advertising, labeling requirements, and bans on misleading claims.

2. Implement age restrictions: Governments should implement age restrictions on electronic cigarette sales to prevent underage usage, which can lead to addiction and health problems later in life. This can also help prevent the transition from electronic cigarettes to traditional cigarettes, among adolescents and young adults.

3. Conduct further research: More research is needed to determine the long-term health impacts of e-cigarette use, particularly regarding their effects on quitting smoking and reducing smoking-related diseases. This can help inform policy decisions and healthcare initiatives aimed at promoting public health

4. Increase awareness through adding the subject into the education curriculum to increase awareness among young adults, as this is a growing industry which does not have enough research.

Materials delivered

1. Research Report: I submitted a comprehensive report summarizing my research findings, conclusions, and recommendations.
2. Presentation Slides: I prepared presentation slides summarizing the research findings for distribution within the university and other universities.
3. Literature review: I conducted a comprehensive review of existing literature on electronic cigarettes to gather evidence on their impacts on public health.

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