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Original Article

# From Smoke to Mist: The Lived Experiences of Nursing Students Who Transitioned the Use of Traditional Cigarettes to E-Cigarettes

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## **Abstract**

**Background:** The rise of electronic cigarettes (e-cigarettes) as an alternative to traditional cigarettes has sparked significant interest, particularly among young adults, including nursing students.

**Methods:** The study explored the lived experiences of nursing students who transitioned the use of e-cigarettes from traditional cigarette smoking utilizing narrative inquiry as the research design. Data analysis followed an iterative process of thematic analysis to identify key themes and patterns in the participants' narratives.

**Results:** Four themes emerged: (1) Predictors of Onset and Immersion, (2) Personal Motivations Driving the Transition from Regular to Electronic, (3) Crossroads of Awareness and Benefits, and (4) Emerging Contours of E-cigarettes.

**Conclusion:** The findings shed light on the intricate dynamics where personal preferences intersect with societal norms, economic considerations, and technological advancements. This paper is associated with SDG 3: Good Health and Well-Being. Good health and well-being encourage healthy well-being among people of all ages.

## Keywords

coping, e-cigarette, health, motivations, lived experience, narrative inquiry, nursing, Nursing students, traditional cigarette, transition

# INTRODUCTION

Over eight million people worldwide are killed by the tobacco epidemic each year, making it one of the most significant public health hazards the world has ever faced (World Health Organization [WHO], 2023). Various tobacco products encompass waterpipe tobacco, cigars, cigarillos, heated tobacco, roll-your-own tobacco, pipe tobacco, bidis and kretek, and smokeless tobacco products (WHO, 2023). Cigarette smoking represents the prevailing mode of tobacco use on a global scale. The World Health Organization (WHO) reports that tobacco use is directly responsible for over 7 million fatalities, most of which are caused by smoking, and exposure to second-hand smoke among non-smokers accounts for around 1.2 million deaths.



Globally, tobacco use is a crucial behavioral risk factor that accounts for 6% of deaths for women and 12% of deaths for men. As supported by Bellew (2013), each year, second-hand smoke (SHS) exposure is anticipated to result in more than 600,000 untimely fatalities, which includes 166,000 deaths connected to lower respiratory infections, 35,800 associated with asthma, 21,000 attributed to lung cancer, and 379,000 linked to ischemic heart disease in adults. In the Philippines, the prevalence of smoking has been a significant public health concern, claiming the lives of at least 87,600 Filipinos annually, equivalent to 240 deaths each day. Notably, one-third of these fatalities involve men in the most productive years of their lives (Bellew, 2013). In addition to traditional cigarettes and combustible products, the utilization of e-cigarettes or electronic-nicotine-delivery/vape products has become prevalent among young adults in recent times.

Furthermore, vaping has increased over the last decade (Patel, 2022). "Electronic nicotine dispensing systems" (ENDS), commonly known as electronic cigarettes or e-cigarettes, have been popularly considered a less harmful alternative to conventional cigarette smoking since they first appeared on the market more than a decade ago. E-cigarettes are electronic devices, essentially consisting of a cartridge filled with an e-liquid, a heating element/atomizer necessary to heat the e-liquid to create a vapor that can be inhaled through a mouthpiece, and a rechargeable battery" (Marqués et al., 2021). This process led to the interest of the researchers exploring the phenomenon of individuals who are transitioning from the use of traditional cigarettes into E-cigarettes, considering the perceptions and the insights of these individuals going into this transition.

Aljaberi and Yao (2021), in a study in Metro Cebu, documented that one of the most recent and highly marketed ways of cutting down cigarette smoking is the use of E-cigarettes, commonly known as vaping. The popularity of this has notably risen, particularly among adults. However, its utilization may carry potential adverse effects that could parallel the risks associated with traditional cigarette smoking. "The e-liquid typically contains humectants and flavorings, with or without nicotine; once vapourised by the atomizer, the vapor provides a sensation similar to tobacco smoking but purposely without harmful effects" (Marqués et al., 2021). The levels of nicotine, a crucial addictive component of tobacco, can vary among commercially available e-liquids, and there are nicotine-free options. "For this particular reason, e-cigarettes are often viewed as a smoking cessation tool, given that those with nicotine can prevent smoking cravings. However, this idea has not been fully demonstrated" (Pokhrel et al., 2015).

"There has been a great deal of interest in studying transition patterns between cigarette smoking and e-cigarette use in both youth and adults" (Wei et al., 2020). In the bustling urban landscape of Cebu City, Philippines, the transition from traditional cigarettes to e-cigarettes among undergraduate nursing students emerges as a captivating study area, resonating at the intersection of health behaviors and evolving societal trends. Against the backdrop of this vibrant city, where cultural dynamics intertwine with the pursuit of academic excellence, understanding the factors influencing this shift becomes paramount. As future healthcare professionals, the choices made by nursing students in navigating the transition from conventional to electronic smoking carry implications for individual well-being, public health, and a broader discourse on tobacco use.

The United Nations has established the Sustainable Development Goals (SDGs), or the Global Goals, as a set of universal objectives to eliminate poverty, ensure peace and prosperity for all, and preserve the environment by 2030 (United Nations, 2015). This study is highly significant in public health and is associated with SDG 3: Good Health and Well-Being. Good health and well-being encourage healthy living and well-being among people of all ages, leading to faster recovery for patients in hospital settings due to improved performance (Karaca & Dyrna, 2019). Both traditional smoking and the use of e-cigarettes have been identified as harmful to health, and understanding the patterns, motivations, and health outcomes associated with these smoking preferences can significantly contribute to achieving SDG 3 (Good Health and Well-being), which focuses on ensuring healthy lives and promoting well-being for all at all ages. Traditional cigarettes have long been recognized as one of the leading causes of preventable diseases, including respiratory diseases, cardiovascular



diseases, and cancers (WHO, 2023). Despite extensive public health campaigns and widespread knowledge of the associated risks, smoking remains prevalent, imposing a significant burden on both healthcare systems and public health. Although e-cigarettes are marketed as a safer alternative to traditional smoking, they are not without risks. Research has shown that while e-cigarettes may reduce exposure to some harmful chemicals found in traditional cigarettes, they still deliver nicotine, which is addictive, and may expose users to other harmful chemicals (Glantz & Bareham, 2018). E-cigarettes have been linked to lung damage, cardiovascular issues, and potential long-term health consequences that remain under study (Gonzalez et al., 2022). By exploring the intricacies of smoking behaviors, such research contributes to the global effort to reduce premature mortality from non-communicable diseases, a key target outlined in SDG 3. The research outcomes have the potential to shape policies and interventions aimed at establishing smoke-free environments, directly addressing the Sustainable Development Goal (SDG) 3's objective of reducing deaths and illnesses caused by hazardous substances and pollution. Ultimately, through the generation of knowledge and the promotion of global collaboration, qualitative research on smoking supports the overarching objective of SDG 3, striving to create a healthier and more sustainable future for individuals and communities worldwide.

This study aimed to explore the lived experiences of nursing students who transitioned to the use of e-cigarettes from traditional cigarette smoking. This endeavor sought to unravel the participants' journey, which may delve into their explicit motivations with the shift and the challenges and perceptions influencing the adoption of e-cigarettes as an alternative to traditional smoking as an observed phenomenon. By shedding light on these experiences, the study endeavors to offer a comprehensive understanding of the influences of the use of e-cigarettes by nursing students and to impart valuable information that can inform about the unique dimensions of this shift and its potential implications for the overall well-being of the said locale.

# METHODS

## **Study Design**

Narrative inquiry was utilized in this study, allowing participants to share their transition experiences without excessive researcher guidance. Employing narrative inquiry allows for a deep understanding of the complexities inherent in human experiences, shedding light on the intricate interplay of personal narratives, societal contexts, and cultural influences. Narrative research appeals to those interested in "constructivist-oriented, qualitative research that examines people's experiences from their perspectives" (Barkhuizen and Consoli, 2021). In the study, the Labovian method was utilized, which is comprised of six steps, namely, (1) abstract, which signals that the story is about to begin and draws attention from the listener, (2) orientation, which helps the listener to identify the time, place, persons, activity and situation of the story, (3) complicating action, the core narrative category providing the 'what happened' element of the story, (4) resolution, recapitulates the final key event of a story, (5) evaluation, functions to make the point of the story clear, and (6) coda, signals that a story has ended and brings back listener to the point at which they entered the narrative.

## Setting

The study on the transition experiences of undergraduate nursing students from traditional cigarettes to e-cigarettes specifically concentrated on Cebu City, Philippines. The research was carried out within nursing schools or institutions in Cebu City, facilitating convenient access to undergraduate nursing students who have undergone or are undergoing this transition for data collection. Cebu City's locale presents a diverse population of nursing students and offers a distinctive cultural context for exploring this research topic.

## Participants

The purposive sampling technique was utilized due to the study's focus on a specific population and phenomenon. By intentionally selecting undergraduate nursing students ages 21 and above, both male and female, who have undergone the transition from traditional cigarettes to e-cigarettes and possess a minimum



one-year history of traditional tobacco usage and at least one year of use of e-cigarettes, researchers ensured a nuanced exploration of this unique lived experience. The sampling frame comprises a list of undergraduate nursing students obtained from relevant educational institutions in Cebu City. A purposive selection of approximately 8-10 participants is based on their specific experience of transitioning from traditional cigarette smoking to e-cigarette use. Inclusion criteria specified that participants must be undergraduate nursing students, male and female, aged 21 years and above, who have undergone the transition and are willing to participate in interviews, observations, and document analysis.

## **Data Collection**

An in-depth interview was conducted to gather information from the identified participants. Each participant was allocated at least 30 minutes to 1 hour for the interview, providing ample time to express their thoughts and respond to the prepared questions.

## **Data Analysis**

Thematic analysis was employed to better understand the participants' experiences through their responses, which were appropriately transcribed and interpreted. With the use of thematic analysis, five steps were followed, namely, (1) familiarization with the data, which involves thoroughly reading and re-reading the data to gain a deep understanding of the content and identify potential themes, (2) generating initial codes, which researchers work through the data, identifying specific elements or segments that are relevant to the research questions and assigning them labels or codes, (3) developing themes, which is grouping and combining related codes into broader themes, identifying patterns and recurring ideas within the data, (4) reviewing themes, which involves critically examining the themes, ensuring they accurately reflect the data and form a coherent pattern, and (5) defining and naming themes, which captures the essence of each theme and ensuring clear and concise communication of the findings.

## **Ethical Considerations**

The researchers were dedicated to upholding a high level of ethical considerations, particularly during the data collection process, adhering to the three core principles of beneficence, respect, and justice. In line with the principle of beneficence, the researchers prioritized preventing harm and maximizing potential benefits. Participants were treated with dignity and autonomy, ensuring their right to self-determination and full disclosure aligned with the principle of respect. The principle of justice was observed, granting participants fair treatment and privacy rights.

To guarantee that participants had adequate information, the researchers offered a thorough overview of the study's goals, methodologies, and possible advantages prior to participants completing the questionnaire. Participants were notified about their option to refuse participation or withdraw from the study at any point, with a commitment to maintaining the confidentiality of their data. Inclusion in the study was dependent on voluntary consent and the provision of essential information from the student nurses.

Moreover, prior to the distribution and conduct of interviews, institutional clearance was obtained. The ethics committee thoroughly reviewed the study's design, methodology, and procedures to ensure alignment with ethical standards. Detailed records of ethical practices were maintained throughout the study, available for review by the ethics committee or relevant authorities.

## RESULTS

Nine participants were selected based on the set inclusion criteria, as shown in Table 1.



Key Informants	Age	Civil Status	No. of years Smoking E-Cigarettes	Reasons for Transitioning
MRE	22	Single	2 years	Social influence & Curiosity of E-cigarettes' satisfactory effects
JC	22	Single	5 years	Peer Influence, Curiosity, and Flavor Appeal
MS	25	Single	3 years	Aroma, Perceived Health Impact & Social Influence of E-cigarettes Utilization
RME	21	Single	4 years	Social influence & flavor and cost efficiency
JL	21	Single	4 years	Trend - Driven Adoption & Personal health awareness
KA	21	Single	3 years	Cost Efficiency and Flavorful Experience of E-cigarettes
RM	21	Single	2 years	Curiosity to Flavor variants & Perceived health benefits
AFM	21	Single	3 years	Aroma and Perceived health benefits
AT	23	Single	5 years	Trend - Driven Adoption

#### Table 1: Key Informants' Profile

The key themes that emerged from the participants' responses are thoroughly discussed, shedding light on Nursing students' experiences in their transition from the Use of Conventional Cigarettes to E-Cigarettes. Employing a Narrative Inquiry Design and utilizing Labovian's Method of Data Analysis, this study offers a comprehensive exploration. A Thematic Analysis approach was also utilized to discern the underlying patterns or themes within the qualitative data provided. The ensuing discussion outlines these identified themes, offering valuable insights into the participants' shared experiences.

## **Participant's Narrative Description**

## Main Story Chronicle: The Grand Inception: The First Puff

## Re-Storying Embers of Ignition and Genesis of Influence and Transition

The stories of the transition among the participants from traditional cigarettes to e-cigarettes fall under the chronicle "The Grand Inception: The First Puff," which serves as the participants' main category of this experience. The transition from adolescence to young adulthood often marks a period of exploration and experimentation, where individuals navigate the complexities of identity formation amidst societal influences. Within this landscape, the initiation of smoking represents a significant milestone for many, characterized by a blend of curiosity, peer pressure, and the allure of newfound independence. Among nursing students whose professional aspirations are anchored in promoting health and well-being, the decision to smoke presents a paradoxical juxtaposition of personal choice against the backdrop of professional ethics. Presented below are excerpts of the "First Puffs" of the nine participants who voluntarily shared their lived experienced with smoking initiation and the multifaceted interplay of factors contributing to initiation, influence, and curiosity. In the bustling world of young adults, the allure of smoking often begins with a subtle nudge from friends. The participants' stories are highlighted in the discussion of the themes, which highlight the significant experiences of the participants in this transition story.

## Participant 1: Ice Blast

For Ice Blast, a college student, it all started during raucous drinking sessions with peers. "My friends introduced me to vaping," Ice Blast recalls, "They said it's less harmful and the flavors are great." Intrigued by the promise of a less odorous and more flavorful experience, Ice Blast made the switch from traditional cigarettes to vaping.

## Participant 2: Lights

Lights, another nursing student, found herself drawn to vaping by the influence of her friends. "My friends were already using e-cigarettes, and they encouraged me to try vaping," she explains. This peer pressure,



coupled with the appeal of different flavors, ultimately led Lights to abandon traditional smoking in favor of the trendy alternative.

#### Participant 3: Mighty

Meanwhile, for Mighty, the transition from smoking to vaping was prompted by the widespread adoption of e-cigarettes among his social circle. "I noticed more people using e-cigarettes," Mighty recalls, "My friends who used them said it's better than smoking." This collective endorsement of vaping and the allure of various flavors convinced Mighty to make the switch.

## Participant 4: Black Mint

Unlike Participant Ice Blast, Participant Black Mint offered a different perspective. He expressed, "The main reason I started smoking e-cigarettes is because of sensation and also because of my friends who now prefer e-cigarettes." Then, he brought up the notion that when considering practicality, buying cigarettes in smaller quantities may appear to be more cost-effective than opting for e-cigarettes.

#### Participant 5: Fortune

Participant Fortune, a 21-year-old Nursing student, reminisced about his introduction to smoking during his high school days, admitting that his curiosity led him to try cigarettes at the age of 16. However, he clarified that he did not become addicted until later. Reflecting on his past actions, he acknowledged the potential consequences of his teenage experimentation. When the pandemic struck, he observed the rising trend of vaping and decided to join in, citing its perceived benefits over traditional smoking. "When the pandemic hit, I just followed the trend because vaping became so popular during the pandemic. That's why I decided to try it out." With uncertainty looming and societal norms shifting, he found solace in adapting to the prevailing trends, seeking comfort in the familiarity of a changing world.

#### Participant 6: Marlboro

Marlboro, faced with the financial strain of regular smoking, found solace in the social trend of vaping. "I switched from smoking to vaping mainly because it was becoming too expensive to buy cigarettes regularly," Marlboro explains, "Also, many of my friends were using e-cigarettes, so I thought I'd give it a try." Economic pragmatism and peer influence propelled Marlboro toward the vaping world.

#### Participant 7: Winston

Winston's journey into vaping was fueled by stress and anxiety, exacerbated by the pressures of academic life and the uncertainty of the pandemic. "Started smoking during high school due to stress from studies... Later, during the pandemic, my friends and I turned to smoking as a way to cope with anxiety," Winston recounts. Seeking a healthier alternative, Winston turned to vaping, drawn by the promise of reduced harm and variety in flavors.

#### Participant 8: RLEX

Finally, RLEX's experimentation with vaping began out of curiosity in high school. "Started vaping in high school out of curiosity," RLEX admits. The stress and peer pressure during the pandemic led to a brief stint with traditional smoking. "Stress and peer pressure led me to start smoking during the pandemic," RLEX recalls. Despite being aware of the health risks, RLEX continues to vape, finding comfort and stress relief in the familiar routine.

#### Participant 9: Hope

Similarly, for Hope, the rise of e-cigarettes during the pandemic caught her attention. "During the lockdown, I noticed more people using e-cigarettes," she recalls, "I thought it might be better than regular smoking, so I tried it." Intrigued by the fragrant smoke and the perceived benefits over traditional cigarettes, Hope embraced vaping as a lifestyle choice.



# DISCUSSION

Four major themes emerged after extracting significant statements and the thematic analysis of the narrative statements. These emerging themes were (1) Predictors of Onset and Immersion, with two subthemes (Domain of Social Influence Prompting Initiation and Indulging Desire for Exploratory Indulgence), (2) Personal Motivations Driving Transition from Regular to Electronic, with two subthemes (E-Cigarette Accessibility and Convenience on Consumption Trends and Siren Call of Vaping, Smell, and Flavorful Transitions), (3) Crossroads of Health Awareness & Benefits, with two subthemes (Health Outcomes and Harm Reduction and Coping Mechanism for Mental Stressors), (4) Emerging Contours of E-Cigarette, with two subthemes (Economics of Responsible Use and Adapting to Technological Advancements) (Figure 1). Each emergent theme is defined and discussed, with excerpts from the transcripts used to support and highlight each theme.

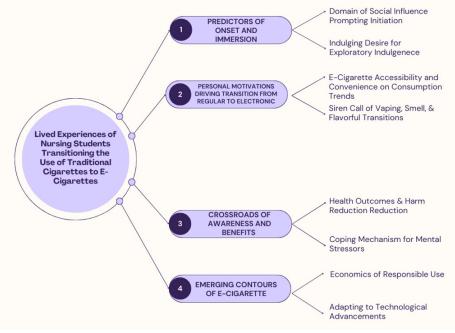


Figure 1: Synthesis of themes and corresponding sub themes

## **Theme 1: Predictors of Onset and Immersion**

The innate human inclination towards onset and immersion to the realms of initiation and exploration delves into the complex array of factors and contexts that influence individuals to start smoking and become deeply involved in the habit. It involves a comprehensive examination of the various predictors and domains that contribute to both the initiation and intensification of cigarette smoking behavior. The intricacies of influences that shape smoking behavior encompass various individual, social, cultural, and environmental factors. It aims to understand not only why individuals begin smoking but also why some progress from experimentation to regular use and addiction. Mayhew et al. (2000) noted that a review of 11 cross-sectional and 33 prospective studies suggested that social, environmental, and intrapersonal factors predict both the onset of adolescent smoking and subsequent increases in the frequency and quantity of use.

Seven key informants shared their narratives concerning the initiation of tobacco consumption, attributing it to a confluence of social influence and intrinsic curiosity. This reflects the multifaceted nature of the interplay between peer influence, social norms, and individual curiosity in the decision to start smoking regularly. Several participants recounted the pivotal role of peer influence and social dynamics in their journey from smoke to mist, highlighting the allure of fitting in and the evolving social norms surrounding smoking behaviors.



## Subtheme 1: Domain of Social Influence Prompting Initiation

Social Influence implies a willingness to immerse oneself in human interaction and communication complexities while embracing the inherent desire to explore and understand the factors associated with smoking initiation. The similarity or homogeneity of smoking patterns for adolescents and their friends has led many researchers to infer that peers influence adolescent smoking (Arnett, 2007; Bauman Ennett, 1996; Kobus, 2003). The mechanism of influence most often postulated is social learning (Bandura, 1977; Petraitis et al., 1995), whereby adolescents learn about tobacco use by observing peers who use tobacco and are reinforced for using tobacco by perceiving apparent advantages, such as gaining acceptance by peers or establishing a particular social identity.

Some of the key informants verbalized their social discourse in the utilization of Conventional Cigarettes, as influenced by peers and other multifaceted factors affecting initiation:

"I was the only one who didn't smoke. They all smoked, and it was just me who didn't. Then, out of curiosity, I wanted to try just to fit in. I observed people, and my friends would suggest it, but they never forced me. Some friends would even encourage me to "give it a try." (Participant 1, SS5)

"I began smoking regular cigarettes out of curiosity and influence from my friends." (Participant 2, SS2)

"Before COVID-19, that's when I was in Grade 10, and it was out of curiosity at first since I also have a cousin who is a smoker, so that was when I tried it, too. (Participant 8, SS1)

Furthermore, in transitioning to E-cigarettes, major multifaceted factors influence individuals to shift from Regular Cigarettes to E-cigarettes. Amin et al. (2020) noted that advertising, social interactions, and social norms were considered social factors; social media was considered a conduit for other social factors, affecting transition decisions. Research suggests that youth and young adults who see their peers or parents smoke may develop positive attitudes about tobacco smoking, which may lead to initiating the behavior themselves (Jayakumar et al., 2020). A similar mechanism may be plausible for e-cigarette initiation. Amin et al. (2020) noted that a systematic review examining social influences on e-cigarette initiation and use found social influences to play a complex role in e-cigarette uptake and use.

Some participants shared that social peers played a significant role in their shift to E-cigarette utilization:

"They say that vaping is better than smoking because of that." (Participant 6, SS3)

"The main reason I started smoking e-cigarette is because of sensation, and also because of my friends who now prefer e-cigarettes." (Participant 4, SS3)

"Oh, I was intrigued by the different flavors, and I was also encouraged by my friends who were already using e-cigarettes." (Participant 2, SS6)

"It's because of the flavors, curiosity, and peer influence. A friend offered me an e-cigarette." (Participant 2, SS8)

## Subtheme 2: Indulging Desire for Exploratory Indulgence

Curiosity, defined as a feeling of "deprivation that arises from the perception of a gap in knowledge or understanding," has been associated with increased susceptibility to future cigarette use among adolescents (Pierce et al., 2005). Nursing students often express curiosity and a willingness to explore new experiences, driven by social influences and the allure of novel sensations associated with e-cigarettes (Canzan et al., 2019; Palmes et al., 2021).

According to Kristin Ashford, a UK College of Nursing professor, college students are inherently curious. She notes, "When new products emerge, students often try them without having adequate data regarding product safety" (Domer, 2020), indicating how curiosity drives individuals, particularly young adults, to explore novel experiences, including using e-cigarettes.

Some of the key informants expressed how their curiosity was associated with e-cigarette use:

"Out of curiosity, I also thought about trying it because traditional cigarettes really do have an unpleasant smell" (Participant 1, SS3)



"I think knowing already the effects of using vape doesn't influence my choices. I think it's likely more on peers and a little bit of curiosity." (Participant 3, SS17

"I started smoking out of curiosity because my older friends were doing it." (Participant 5, SS2)

"It was more out of curiosity on my part. It's really just my personal choice" (Participant 7, SS17)

"Before COVID-19, that's when I was in Grade 10, and it was out of curiosity at first since I also have a cousin who is a smoker, so that was when I tried it too." (Participant 8, SS1) Some of the key informants expressed how their appeal to e-cigarettes to relieve feelings of intoxication.

"Due to curiosity because all of my peers were smoking, I wondered if smoking could actually relieve my headache and the urge to vomit, which are effects of my alcohol consumption." (Participant 1, SS1)

Furthermore, adolescents appear to initiate e-cigarette use out of curiosity and find them appealing due to attributes such as being perceived as "cool" and "less harmful" compared to traditional cigarettes (Simpson et al., 2022), suggesting that curiosity, coupled with the perceived advantages of e-cigarettes, influences adolescents' decision-making regarding tobacco use.

#### Theme 2: Personal Motivations Driving Transition from Regular to Electronic

The switch from traditional tobacco cigarettes to electronic cigarettes (e-cigarettes) represented a significant shift in smoking behavior among people worldwide. This transition was influenced by a variety of personal motivations that led smokers to seek alternatives to traditional smoking practices. Understanding the domains of personal motivations that drive this transition is critical for addressing the complexities of tobacco use. This transition is influenced by a variety of personal motivations that led smokers to seek alternatives to traditional smoking practices. Within the realm of tobacco consumption, the participants' transition towards electronic alternatives was significantly influenced by the accessibility and convenience offered by e-cigarettes. D' Angelo et al. (2021) highlighted the association between accessibility to e-cigarettes in convenience stores or online and exposure to e-cigarette advertising with the initiation of e-cigarettes. Moreover, the allure of vaping extends beyond mere convenience, encompassing sensory experiences that evoke the siren call of flavor and aroma. Leventhal et al. (2020) stated that the appeal of e-cigarettes varies based on individual reasons for vaping, with those vaping for flavor-related reasons showing a stronger preference for flavored e-liquids. Understanding the domains of personal motivations that drive this transition is critical for addressing the complexities of tobacco use and developing effective smoking cessation interventions.

#### Subtheme 1: E-Cigarette Accessibility and Convenience on Consumption Trends

The ease of access and convenience played a crucial role in influencing the effects of using e-cigarettes among nursing students. Since they are seen as more budget-friendly with options like refillable systems, alterations in their prices could significantly influence the consumption habits of the study's participants. Moreover, their widespread availability in nearby stores, online platforms, or other convenient avenues amplified their impact on consumption trends. Sapru et al. (2020) stated that e-cigarettes were available for online purchase with the ease of a click and can be widely seen in shopping mall kiosks, which are a common place for adolescents to spend much of their free time. This ease of purchase and availability has made e-cigarettes easily accessible to consumers. The availability and marketing of e-cigarette use (D' Angelo et al., 2021). The widespread availability of e-cigarettes in these settings not only increases their visibility but also facilitates impulse purchases, making them more accessible to consumers seeking a convenient and immediate solution to their nicotine cravings.

Some key informants shared their experiences of transitioning from traditional cigarettes to e-cigarettes, influenced by the accessibility and convenience of e-cigarettes:

"They are still easy to buy, especially online. Maybe there are restrictions in local stores, but anyone can buy online as long as they can pay." (Participant 2, SS18)



"But e-cigarettes might be slightly easier to access because they are widely available, especially online."

"It's prohibited to sell vapes on Facebook marketplace, but nowadays you can purchase one in supermarkets like Metro and Gaisano." (Participant 3, SS 15)

"For me, when it comes to vaping, it seems like anyone can access it regardless of age, especially online, where the process is easy even if you have to wait a while." (Participant 7, SS 18)

Some key informants shared their experiences of transitioning from traditional cigarettes to e-cigarettes, influenced by availability:

"In our community, both traditional cigarettes and e-cigarettes are equally accessible for nursing students. But e-cigarettes might be slightly easier to access because they are widely available, especially online." (Participant 2, SS19)

"It's really easy to buy e-cigarettes because I've noticed that when we're together, and I've had experiences with some of my classmates, some of them still smoke cigarettes. They still use cigarettes. And yeah, as I mentioned earlier, buying E-cigarettes is quicker, but it's even faster now because they're more readily available. They use high-end brands of e-cigarettes, and there are resellers." (Participant 4, SS12)

## Subtheme 2: Siren Call of Vaping, Smell, and Flavorful Transitions

The explosion of e-cigarette popularity among young adults has sparked significant interest in understanding the factors driving their preferences, particularly in smell and flavor. E-cigarettes boast diverse flavors, exceeding one hundred options, making them highly attractive, especially among younger demographics. Flavors such as candy floss, cinnamon, chocolate, vanilla, bubble gum, and mint contribute to their appeal across all age groups. Pepper et al. (2016) highlighted that these varied flavor choices make e-cigarettes more appealing to adolescents compared to tobacco-flavored alternatives. Furthermore, Baker et al. (2021) observed that flavor is the most crucial factor in e-cigarette preferences among young adults who vape weekly.

Some key informants shared their experiences of transitioning from traditional cigarettes to e-cigarettes, influenced by the dominance of flavors in e-cigarette preference:

"When I started using vape or electronic cigarettes, I found them appealing because they have a taste, a flavor. Plus, the flavor of vape is enjoyable. Electronic cigarettes often have menthol, which adds a sweet taste to the mist it produces." (Participant 1, SS2)

"E-cigarettes offer a wide variety of flavors, unlike traditional cigarettes, which typically only have menthol flavor." (Participant 2, SS3)

"I prefer vaping because of its flavors" (Participant 3, SS8)

"Also included are the flavors, which is interesting considering the variety of choices available." (Participant 7, SS4)

Some key informants shared their experiences of transitioning from traditional cigarettes to E-cigarettes, influenced by the role of scent in shaping their preference for e-cigarette products:

"I find it easier to breathe, and there's less lingering smell on my clothes." (Participant 5, SS6)

"Traditional smoking has a strong nicotine smell and harsh throat hit. "Vaping is lighter on the throat and smells pleasant depending on the flavor" (Participant 5, SS4)

"When you take a puff, it's nice and has a soothing which is why it made me switch as well" (Participant 7, SS4)

One participant expressed how their decision to switch was influenced by both the aroma and taste of the products:



"Moreover, there's the added benefit of various flavors with e-cigarettes, like strawberry, grapes, ice cream, and so on, which make it more pleasant." (Participant 1, SS3)

Delving into the motivations behind vaping initiation, Simmons et al. (2016) reported a preference for flavors reminiscent of familiar tastes, indicating the significant role of flavor in personal motivations for both starting and continuing e-cigarette use. Additionally, Majchrzak et al. (2020) noted that individuals transitioning from regular tobacco cigarettes to electronic ones may experience changes in olfactory function, potentially altering their perception of smell and taste. This shift in sensory experience could serve as a personal motivation for some individuals to switch to e-cigarettes, seeking a distinct olfactory sensation compared to traditional tobacco cigarettes. Exploring the intricate relationship between flavor diversity, smell preference, and e-cigarette appeal provides valuable insights into consumer behaviors and motivations.

## **Theme 3: Crossroads of Awareness and Benefits**

The shift from traditional cigarette smoking to vaping has attracted considerable attention in recent times, prompting investigations into its effects on individual health awareness and perceived advantages. Smith et al. (2019) identified diverse experiences, with respondents noting significant enhancements in respiratory health, such as decreased coughing and less difficulty breathing. Furthermore, individuals expressed a sense of empowerment in managing their nicotine dependency through vaping, highlighting the ability to regulate nicotine intake and gradually reduce levels. Similarly, Jones et al. (2019) explored the motives and perceived health benefits associated with vaping among young adults. The study revealed various perceived benefits, including reduced exposure to harmful chemicals in traditional cigarettes and improved physical health. Noteworthy is the acknowledgment by participants of vaping as a safer alternative to smoking, with recognition of its effectiveness in aiding smoking cessation efforts. Additionally, Brown et al. (2019) demonstrated significant enhancements in self-reported health outcomes among participants, with notable reductions in coughing frequency, improved respiratory function, and overall well-being observed following the switch to vaping. These subjective experiences of personal health awareness and advantages, associated with transitioning from smoking to mist, emphasize the multifaceted nature of this behavioral shift and its potential implications for public health.

## Subtheme 1: Health Outcomes and Harm Reduction

In recent years, there has been a significant transformation in tobacco consumption patterns with the rise of alternative products like vaping devices and smokeless tobacco. This change has prompted considerable research interest in understanding how nursing students perceived their health awareness and the advantages of switching from traditional smoking to these new methods. According to (Sengbusch et al., 2021), conventional tobacco cigarettes were recognized for their harmful health consequences, but the addictive nature of tobacco kept individuals from using them. The initial physiological alterations caused by tobacco smoke occur in the respiratory tract, which heightens the likelihood of respiratory infections, exacerbates asthma symptoms, and can result in chronic obstructive pulmonary disease (COPD) and various cancers. (Malt et al., 2020) mentioned that despite combustible cigarettes maintaining their status as the predominant nicotine product globally, there is a growing global trend to turn to electronic cigarettes (EC) as they seek less harmful alternatives to traditional tobacco. Furthermore, it provides a similar experience with reduced health risks.

Some key informants shared their experiences on physical health outcomes associated with traditional cigarettes, which prompted these participants to switch to e-cigarettes:

"I've noticed that my lung capacity has decreased. Before, I wouldn't easily get out of breath while exercising, but now, I find myself getting tired and out of breath more quickly. (Participant 1, SS4)

"Traditional smoke has back pain effects, and I can feel palpitations." (Participant 3, SS12)

"With cigarettes, I would get bloodshot eyes, and breathing was difficult." (Participant 5, SS6)



*"I found it challenging to catch my breath or would easily run out of breath, which made me very conscious of my respiratory health. (Participant 7, SS7)* 

"I have asthma and allergies, so after I smoke, even if I brush my teeth multiple times, my throat still feels itchy, there's wheezing afterward." (Participant 8, SS3)

*"Terms of physical, my air and everything went back to zero." (Participant 8, SS9)* Some key informants shared their experiences with e-cigarettes as a means to reduce harm:

"E-cigarettes seem less harmful without heat or ash." (Participant 2, SS9)

"With vaping, so far, I haven't felt anything physically. I haven't felt any pain in my back, no coughing, no throat irritation, nothing." (Participant 3, SS12)

"During the pandemic, I switched to e-cigarettes because they have less nicotine and fewer side effects compared to traditional smoking. (Participant 5, SS6)

"Yes, that's exactly why I switched—to prioritize my health and choose a less risky option compared to traditional smoking. My goal is to eventually quit nicotine altogether." (Participant 5, SS15)

"Like those who say that the health risks are less with vaping compared to traditional ones." (Participant 6, SS11)

"That's why I switched to vaping because they say it has less nicotine" (Participant 6, SS12)

*"I didn't want to continue smoking, so I researched healthier alternatives to actual cigarettes. I consider e-cigarettes a healthier version of cigarettes." (Participant 7, SS8)* 

*"I transitioned to e-cigarettes because they were considered healthier than traditional ones." (Participant 7, SS12)* 

In e-cigarettes, the process of tobacco combustion is supplanted by the heating of e-liquid. This shift has prompted certain manufacturers to suggest that e-cigarettes may entail reduced respiratory risks. Additionally, incorporating innovative features such as customizable nicotine levels and a diverse array of appealing flavors has garnered significant favor among users (Marqués et al., 2021). For many smokers prioritizing public health, e-cigarettes represent a viable strategy for disease reduction and longevity (Bates, 2021).

## Subtheme 2: Coping Mechanism for Mental Stressors

In the face of mental stressors, individuals often turn to coping mechanisms to manage their distress. The most adopted coping mechanism is carrying out constructive distractions through activities or social interactions to cultivate happy thoughts and emotions (Bate et al., 2019). Among these coping strategies, smoking has emerged as a prevalent yet controversial method of self-regulation. (Evans-Polce et al., 2018; Webb Hooper & Kolar, 2016; Kong et al., 2021; Patrick et al., 2016). Notably, evidence suggested that relaxation and stress relief were important motivations for vaping. A study of high school students found that stress relief followed by peer influence was the most prevalent reason for adolescent vaping (Jha & Kraguljac, 2021). Similarly, Kong et al. (2021) showed that stress relief was the most common reason for vape use among youth focus group participants.

While smoking may offer temporary relief from stress, Chen et al. (2019) stated that Vaping nicotine relieves anxiety and depression. Understanding the role of smoking as a coping mechanism for mental stressors is crucial for developing targeted interventions to address both smoking behavior and mental health outcomes. This review aims to explore the complex relationship between smoking, stress, and coping, shedding light on the underlying mechanisms and implications for public health interventions.

Some key informants shared their experiences of using e-cigarettes as a coping mechanism for stress and depression:



"Whenever I'm academically stressed, vaping really helps me feel at ease. So, for me, it aids my mental well-being. Despite being aware of the health implications of both, I still choose to vape because although there are physical health risks, the satisfaction it provides in terms of mental well-being is incomparable." (Participant 1, SS4)

"Learning about the health effects of smoking can indeed lead to overthinking at times. However, my purpose in vaping is to relieve stress and to calm myself when under pressure." (Participant 1, SS7)

*"It helps me sometimes physically, especially when I'm stressed because that's my way of coping, vaping."* (Participant 2, SS3)

"Starting vaping in grade 12, I was aware of health risks but prioritized stress relief." (Participant 2, SS11)

"Like, in my case, it can also relieve stress." (Participant 6, SS1)

Some key informants shared their experiences of using e-cigarettes as a coping mechanism as means to improve mood:

"I prefer vaping over traditional smoking because it helps relieve stress, but I limit my vaping. Vaping is enjoyable as it allows me to perform tricks, making me look cool" (Participant 2, SS13)

"According to my acquaintances, vaping is better, with fewer health risks. That's also one of the factors because it's more enjoyable than cigarettes" (Participant 4, SS6)

"Like, if I have a problem, if I don't vape, it's like it helps lighten my mood." (Participant 6, SS4)

"The pros of vaping are that it makes me happy and relieves stress. The cons include the stigma associated with smoking in general, which can be upsetting to hear. Vaping has its own stigma, especially in my nursing profession, but it helps me stay balanced." (Participant 5, SS8)

"I just felt that because of cigarettes, I could feel calm." (Participant 7, SS9)

"I don't see any negative effects; vaping helps me calm down when stressed, and I haven't noticed any changes." (Participant 9, SS8)

Some key informants shared their experiences of using e-cigarettes as a coping mechanism and means of relaxation:

"Vaping had a positive impact during stressful study times or after hospital duty, providing relaxation and distraction for better focus. However, I started limiting vaping after experiencing chest pain." (Participant 2, SS10)

"I haven't noticed any trouble sleeping because of vaping, because I can still sleep. Maybe for me, it helps with stress because when you inhale, it feels like your chest relaxes." (Participant 3, SS10)

*"I recently started using e-cigarette because of their perceived benefits like relaxation and anxiety relief"* (Participant 7, SS7)

Sudraba et al. (2015) stated that young adult male smokers are more likely to use emotion-focused coping strategies than problem-focused coping strategies. This result is consistent with the study of "Stress coping strategies of drug and alcohol addicted patients in Latvia." Lazarus (1991) highlighted that cognitive skills were used to solve the problems. People who use cognitive skills usually obtain psychological satisfaction because they find proper solutions to problems. Moreover, identifying the source of stress is done correctly, and stress can be evaluated best. Consequently, it can increase self-esteem and improve people's moods, which means improving the mental health of individuals while decreasing anxiety. Taylor et al. (2014) highlighted that smoking cessation also reduced symptoms of depression and anxiety while improving the overall quality of life for former smokers.



## **Theme 4: Emerging Contours of E-Cigarette**

The narrative on e-cigarette utilization in the dynamic milieu of student life found robust support in recent empirical research. Beard et al.'s (2019) analysis of electronic cigarette trends in England offered statistical evidence on the prevalence and characteristics of e-cigarette use, aligning with the portrayal of e-cigarette comfort as a pivotal point in student life, mirroring societal shifts. Additionally, Morean et al. (2018) established a significant association between e-cigarette flavor preferences and usage frequency among adolescents, underscoring the influence of sensory experiences on smoking habits, thereby reinforcing the narrative of evolving comfort perceptions. Furthermore, Loukas et al.'s (2021) longitudinal investigation into smoking trajectories among youth provides a comprehensive understanding of shifting smoking behaviors over time, lending credence to the assertion that students' attitudes and behaviors towards smoking undergo profound shifts amidst societal and technological changes. These studies offer empirical support and support the narrative, highlighting the multifaceted dimensions shaping student e-cigarette adoption.

## Subtheme 1: Economics of Responsible Use

Amidst the discourse on the rising costs of higher education, as discussed by Boise State University (2021), students confront not only academic expenses but also personal expenditures, including lifestyle choices like vaping. With the escalating costs associated with traditional smoking, some students turned to vaping as a cost-efficient alternative. As they weigh the financial implications of their habits, students grapple with the economic realities of sustaining their lifestyle amidst fluctuating expenses. Despite the ongoing financial constraints, students consistently demonstrated a nuanced approach to managing their finances, showcasing remarkable adaptability and pragmatism in navigating the intersection of personal habits and economic limitations (Smith & Jones, 2019). This adaptability is evident in their financial decisions and extends to their academic and personal experiences. Just as educators are compelled to adapt to the evolving demands of the pandemic, students exhibit resilience by making informed choices, underscoring the interconnectedness of financial considerations with their overall academic and personal well-being.

Some key informants shared their experiences of transitioning from traditional cigarettes to E-cigarettes, influence in cost-saving strategies or alternatives to e-cigarette use among students:

"Vapes are easy to purchase and dispose of. Although they may be more expensive upfront, you don't need to keep buying new vapes frequently. Unlike traditional cigars, which only last for a short duration, maybe 10 minutes at most for one stick." (Participant 1, SS6)

"Regarding the difference, e-cigarettes have a significant advantage because they are more affordable and they last longer." (Participant 2, SS4)

"I find it easier to buy regular cigars from a store for quick access. Ordering e-cigarettes online is convenient but can be a hassle. I usually buy multiple e-cigarettes at once to save on shipping costs, ordering online and getting enough to last me a month." (Participant 5, SS13)

## Subtheme 2: Adapting to Technological Advancements

Technophilia is the positive orientation toward new technology, drawing attention to the pleasure and emotional qualities that accompany the adoption of new technologies (Ronit, 2011; Thrasher et al., 2019); Mcdonald and Ling (2015) stated that young adults perceived e-cigarettes to be like other relatively novel technological devices they used, wherein the technological aspects of e-cigarettes (i.e., plugging in and charging e-cigarettes) were appealing. The evidence linking technophilia to e-cigarette use is scarce. However, a recent qualitative study found that young adults perceived e-cigarettes as another "toy" comparable to a mobile phone or a flash drive (McDonald & Ling, 2015).

Some key informants shared their experiences of transitioning from traditional cigarettes to toe-cigarettes and their influence on the affordability of e-cigarette accessories such as replacement cartridges, batteries, or chargers:



"It also has a battery life; you have to charge it when it gets low. You buy the device itself, and then, instead of buying a new device afterward, you just need to buy juice for refills and charge it." (Participant 1, SS2)

"It's handy, and you don't need a lighter or anything like that." (Participant 3, SS9)

"That's why with vaping, you only need to buy one thing, and it can last you for months because you only need to replace the juice and the coil." (Participant 6, SS2)

Narrative inquirers are not interested primarily in the facts or truth of these accounts but rather in the meanings portrayed in story form. The storytellers construct their stories to convey a specific perspective of an event; it is meaning, not necessarily truth, which is conveyed in the form of stories. The purpose of narrative inquiry is to reveal the meanings of the individuals' experiences as opposed to objective, decontextualized truths (Bailey & Tilley, 2002 cited in Wang & Geale, 2015). To use creative frameworks in narrative inquiry design, researchers can leverage storytelling frameworks, visual prompts like photographs, and thematic analysis to explore and represent narratives, amplifying marginalized voices and fostering a deeper understanding of lived experiences. Thus, in this study, to further highlight the participants' experiences, a thematic framework is created to show the journey of the transition cycle among the participants, which is aligned with the Contextual Narrative Interpretation (CNI) model by Finkelstein et al. (2024), which emphasizes the using both text and context to reveal new aspects of the narrative and represent these cases visually.

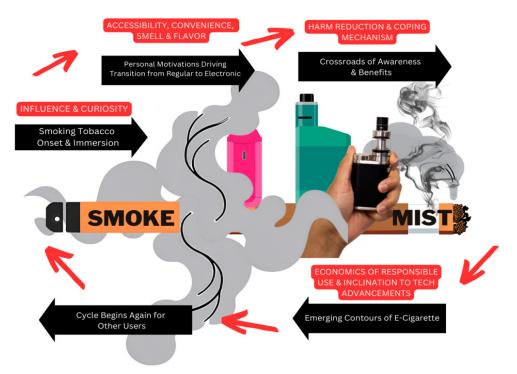


Figure 2. Thematic Framework of Transition Cycle

**Predictors of Onset and Immersion** have been the key domains in the participants' smoking initiation and transition from Conventional Cigarettes to E-Cigarettes. Societal influence and curiosity have been the nursing students' significant contributors to engagement with smoking and exploration of smoking-related domains. The smoking initiation delves into the multifaceted factors influencing individuals' decisions to start



smoking and transition to e-cigarettes. Research suggests that youth and young adults who see their peers or parents smoke may develop positive attitudes about tobacco smoking, which may lead to initiating the behavior themselves (Jayakumar et al., 2020). Peer pressure, social norms, and the desire to fit in emerged as significant drivers prompting smoking initiation, both with conventional cigarettes and e-cigarettes. The research also highlighted the impact of curiosity on smoking behavior, with individuals expressing a sense of exploration and novelty-seeking in their decision to try smoking.

Furthermore, adolescents appear to initiate e-cigarette use out of curiosity and find them appealing due to attributes such as being perceived as "cool" and "less harmful" compared to traditional cigarettes (Simpson et al., 2022). The result underscored the complex interplay of social influence and exploratory indulgence in the initiation and progression of smoking habits, which sheds light on the intricate dynamics influencing smoking initiation, emphasizing the need for comprehensive strategies that address social influences, curiosity, and perceptions surrounding smoking behaviors to combat smoking initiation among the youth population effectively.

The paradigm shift from traditional tobacco consumption to the adoption of electronic cigarettes (e-cigarettes) is a subtle evolution underpinned by very Personal Motivations Driving Transition from Regular to Electronic, as highlighted by the tales and insights of the nursing students participants. Accessibility and convenience played crucial roles, with e-cigarettes readily available in various retail outlets and online platforms. Participants emphasized the ease of purchasing e-cigarettes, primarily online, which has contributed to their widespread adoption. This accessibility has facilitated impulse purchases and served as a driving force behind the transition for many smokers. Additionally, the allure of vaping extends to sensory experiences, mainly the diverse range of flavors offered by e-cigarettes. Participants noted their preference for e-cigarettes due to the enjoyable flavors available, contrasting with the limited options of traditional cigarettes. Leventhal et al. (2020) found that among young adults, flavor emerged as a notable element influencing the attractiveness of e-cigarettes, especially with fruit and dessert flavors being highlighted as particularly enticing options. Moreover, the potential alteration of olfactory function from traditional to electronic cigarettes further motivates individuals to switch. These insights underscored the importance of understanding personal motivations in addressing the complexities of tobacco use and developing effective smoking cessation interventions, as discussed within the context of the themes generated and participants' responses.

The Crossroads of Health Awareness and Benefits of e-cigarette utilization, as underscored by the narratives and insights of nursing student participants, unveiled a multifaceted landscape shaped by physical and mental well-being considerations. Within the realm of health outcomes and harm reduction, participants elucidated the detrimental effects of traditional cigarette consumption on respiratory health, encompassing diminished lung capacity and respiratory challenges. Conversely, the adoption of e-cigarettes was propelled by the perception of diminished harm, with users reporting fewer physical discomforts and a lighter impact on respiratory function. This transition was propelled by a dedication to prioritize health and mitigate the risks associated with conventional smoking. Additionally, participants articulated the use of e-cigarettes as a coping mechanism for stress alleviation, relaxation, and mood enhancement, viewing vaping as a more enjoyable and efficacious alternative to traditional smoking. These revelations underscored the intricate interplay between personal health awareness, coping strategies, and the perceived advantages of transitioning to alternative nicotine products, emphasizing the imperative for tailored interventions addressing both the physical and psychological dimensions of tobacco use.

In recent years, the landscape of student preferences and comforts has undergone a transformative shift with the advent of electronic cigarettes, commonly known as e-cigarettes. This phenomenon has sparked an intriguing discourse surrounding the Emerging Contours of E-cigarette. The shift from traditional tobacco cigarettes to electronic alternatives like e-cigarettes represents a complex journey for nursing students, influenced by a variety of interconnected factors. In this intricate process, students' changing preferences, shaped by personal tastes and experiences, intersect with broader societal norms and expectations. Economic



factors also play a role, as the nursing students considered the costs associated with both traditional smoking and vaping.

Additionally, the appeal of technological advancements contributed to this dynamic landscape, as nursing students are attracted to the modernity and convenience offered by e-cigarettes. Their stories not only highlight the complexity of these factors but also emphasize how they interact with each other. While some nursing students may view vaping as a practical solution to the rising costs of tobacco products, others may be drawn to the stylish appearance and perceived popularity of e-cigarettes. Interestingly, despite potential financial limitations, participants demonstrated a notable level of adaptability, showing their ability to navigate and adjust their lifestyles accordingly. Furthermore, social influences subtly impacted some of the students' decisions, highlighting the importance of peer dynamics and societal pressures in shaping smoking behaviors. These insights offered a nuanced understanding of the multifaceted dynamics involved in transitioning to e-cigarettes, underscoring the necessity for comprehensive support systems that address the diverse range of factors influencing individuals' smoking habits and choices.

## CONCLUSION

The insights into the evolving landscape of tobacco and e-cigarette use among nursing students underscore the need for a nuanced understanding of the multifaceted factors influencing smoking behaviors. The narratives provided shed light on the intricate dynamics where personal preferences intersect with societal norms, economic considerations, and technological advancements. Despite the complexity of these factors, nursing students demonstrate a notable level of adaptability, navigating the transition to e-cigarettes with varying motivations. While some are drawn by practical solutions to rising costs or allured by modernity and convenience, others may prioritize health considerations or seek alternative coping mechanisms. Moreover, the subtle impact of social influences underscores the importance of comprehensive support systems to address the diverse range of factors influencing smoking behaviors and choices among nursing students. As the landscape continues to evolve, understanding these dynamics becomes imperative in developing effective interventions that cater to the individual needs and preferences of nursing students, ensuring their well-being amidst the changing landscape of tobacco and e-cigarette use.

## Recommendations

With the findings of the study, the following are recommended.

- The participant pool for this research should be expanded, including individuals who can strongly relate to the study's topic. Their perspectives may offer a broader and varied insight into the transition from traditional cigarettes to e-cigarettes.
- 2. To enhance the study's scope, consider recruiting a more extensive and diverse range of participants, which could involve individuals from various demographic backgrounds, socioeconomic statuses, and geographic regions.
- 3. Further investigation is warranted to examine how the shift to e-cigarette usage affects the health and behaviors of smokers' social networks, encompassing family members, friends, and colleagues.
- 4. Develop a comprehensive support program or policy to raise awareness and address the stigma associated with the utilization of e-cigarettes.
- 5. Advocate for sustainable consumption among nursing students by promoting responsible consumption practices, emphasizing the reduced carbon footprint of e-cigarettes compared to traditional tobacco products, and encouraging responsible choices to mitigate harm to personal health and the environment, aligning with SDG 12.
- 6. Underscore the importance of education in addressing the complexities of tobacco and e-cigarette use among nursing students, aligning with SDG 4. Tailored educational interventions can empower students to make informed decisions, promoting their well-being amidst evolving smoking trends.



## Creative Synthesis

In halls where healing hearts are trained, Where knowledge blooms and skills are gained, Nursing students once smoked through stress, With traditional cigarettes to suppress.

> The acrid scent of smoke would cling, A silent, suffocating ring, But change began, a vapor's rise, As e-cigarettes became their prize.

A puff of mint, a breath of peach, Relief within their anxious reach, Yet still the nicotine's tight hold, A newer tale, the same old mold.

Their journey's twist, a modern way, From smoke to mist, they found a sway, But deep inside, they still debate, The health they guard, the risks they take.

In shadows of the hospital, Where dreams and fears both rise and fall, They learn to heal, they strive, they cope, With vapor trails, they search for hope.

## **Authors Contributions**

Abala: Validation; Gabriel: Investigation; Nuñez: Validation, Data curation; Abano: Writing-Reviewing and Editing, Data curation; Acera: Software; Mejarito: Writing-Original draft preparation; Cañete: Visualization; Burias: Investigation; Gayo: Conceptualization; Alforque: Conceptualization, Methodology, Supervision

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## **Ethical Approval**

The study has been reviewed and hereby granted APPROVAL for implementation by the Recoletos Ethics Review Office (RERO) of the University of San Jose-Recoleos, with RERO Reference Number SAMS-BSN-2024-02. Informed consent was obtained from all participants who were included in the study.

## **Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## **Data Availability**

Data will be made available by the corresponding author on request.

## **Declaration of Artificial Intelligence Use**

In this work, the author(s) utilized artificial intelligence (AI) tools and methodologies, Chatgpt AI to generate ideas, summarize information and improve writing to enhance efficiency and productivity in the research process. After using this tool/service, the author(s) evaluated and revised the content as necessary and take(s) full responsibility for the published content.



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