

## Descriptive Study on Driving Factors of Vape Use and Lifestyle Changes Among Generation Z

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### ABSTRACT

The increasing use of e-cigarettes among Generation Z raises new concerns in health promotion, especially regarding changes in behavior and perceptions of health risks. This study aims to identify factors that influence vaping and its impact on the quality of life of adolescents. Based on the Lentera Survey (2015), 45% of adolescents in Indonesia aged 13-19 years have smoked. In this era, cigarettes can also kill more than 1 billion people if there is no effort to reduce it. The method used is a literature review of 15 scientific articles obtained from the Google Scholar and PubMed databases throughout 2010-2025. The results of the study showed that vaping was influenced by curiosity, peer invitations, social media promotions, trends, and the belief that vaping (electronic cigarettes) is safer than conventional cigarettes. All of this shows that there are health standards that are followed in the adolescent community. Based on the conclusions of 15 literature reviews, it was found that the average behavior that drives e-cigarette users (vape) in the lifestyle of generation z is influenced by several factors, namely. First, peer influence. Second, following worldly trends that make generation z curious. Third, the influence of the social environment. Fourth, Gen z feels that consuming e-cigarettes is more economical than conventional cigarettes.

**Keywords:** *vape, e-cigarette, generation Z, lifestyle*

## INTRODUCTION

Electronic cigarettes (vapes) are devices that use batteries to produce vapor from nicotine, fruit flavors, and other chemicals. Vapes work by managing liquid in a tube and then converting it into vapor. In cigarettes, the chemical content refers to nicotine derived from tobacco, while tobacco products are divided into two categories: combustible and non-combustible. One example of an easy-to-use tobacco product is traditional tobacco or cigarettes, while another example of a difficult-to-use product is electronic tobacco or vapes. (O. Onor, Daniel, Shandrika R. Williams, Daniel Bediako, Amne Borghol, Martha B. Harris, Tiernisha B. Darensburg, Sharde D. Clay, 2017). People born between 1997 and 2012 are referred to as Generation Z. They were born and raised in a technologically advanced environment, where social media and technology play an important role in their daily lives. Their use of advanced technology inadvertently affects their personal lives (Saepulloh et al., 2024). That because vape and electronic cigarettes are products that have a negative impact on society, the government must monitor their distribution and pay attention to their use. However, the Minister of

Health and other medical organizations have not included any regulations regarding electronic cigarettes or vapes in their laws; scientific evidence is still needed to support the policy (Hayati et al., 2020).

The smoking habits of some people have also indirectly changed due to the availability of electronic cigarettes. Many people who previously smoked traditional tobacco cigarettes have now switched to vaping (Monifa Putri, 2023). The number of teenagers in Indonesia who use electronic cigarettes continues to increase. This includes teenagers who smoke traditional cigarettes but switch to electronic cigarettes and teenagers who smoke electronic cigarettes directly. Given its impact on the health of the nation's next generation, this situation is becoming more serious and worrying. According to the 2015 Lentera Survey, 45% of Indonesian teenagers aged 13 to 19 have smoked. Cigarettes have the potential to kill more than 1 billion people today if no steps are taken to minimize their use. In an effort to address the global cigarette epidemic, WHO created the WHO Framework Convention on Tobacco Control (WHO-FCTC). However, WHO continues to promote smoking cessation by reducing the risks of tobacco in a

number of ways, such as using nicotine replacement therapy (NRT) (Barnes et al., 2020).

Indonesia has the highest rate of adolescent smokers in the world, according to the Global Youth Tobacco Survey (GYTS). The age at which people start vaping varies by gender and age group, according to GYTS 2014 data. The majority of men started vaping at age 7 or older (Mahirah, R., Aramico, B., & Arifin, 2018). Smokers are more likely to die suddenly and have a 2-4 times higher risk of coronary heart disease. Passive smokers are also negatively affected by smoking; compared to active smokers, they inhale more cigarette smoke, including twice as much nicotine, five times as much carbon monoxide, three times as much tar, and fifty times as many compounds that are bad for your health (Winda et al., 2020).

## **METHOD**

This study is a literature analysis conducted by examining various writings and studies sourced from both national and international publications. This study took place from February to April 2025. The data sources used in this study are reliable, including scientific journals, articles, reports, and other academic documents. The study population includes all studies that discuss factors

that influence generation z using e-cigarettes (vape) and their implications, while the sample consists of studies that focus on factors that influence vape use in generation Z.

The literature for this study was accessed through two electronic databases: Google Scholar, PubMed. The search keywords include “Vape”, “Generation Z”, “Public Health”, “e-cigarette”, and “lifestyle. The selection of literature follows the PRISMA flow diagram which includes the stages of identification, screening, evaluation of eligibility, and inclusion. Articles are selected based on inclusion criteria such as being in Indonesian or English, open access, accessible in full text, published between 2015 and 2025, and relevant to the topic of E-cigarette use among Generation Z. Conversely, articles originating from repositories or not published in scientific journals, not available in full text, or not related to the research theme will be excluded from the study (exclusion). This research has gone through an ethical review process from the research ethics commission of the Faculty of Public Health, Muhammadiyah University of Jakarta with the number: 10.019.C/KEPK-FKMUMJ/V/2025

## **RESULTS AND DISCUSSION**

Based on a review of 15 journals analyzed, a number of factors were found that encourage the use of electronic cigarettes (Vape) and their implications for Gen Z's lifestyle. These factors include: Addiction, Dependence, Self-restraint, Familiarity, Community, Lifestyle, Influence of Peers, Family Environment, Social Environment, Not Knowing the Effects of Electronic

Smoking, People feel that consumption compared to traditional cigarettes, electronic cigarettes are cheaper, Economic factors, Age, parental influence, influence of advertising promotions. The following is a list of literature review table data

**Table 1. List of Literature**

No	Researcher Name	Heading	Publication and Year	Method	Conclusion
1	Dima Nurohmah Hayati, Susi Ari Kritina, Yayi Suryo Prabandari	Overview of Nicotine Dependence on Electronic Cigarettes/Vapes Among Yogyakarta Students	Pharmaceutica l Magazine Vol. 16 No. 2: 170-175 Year 2020	Descriptive analysis with cross-sectional study design.	The study concluded that because vape and e-cigarettes are products that are detrimental to society, the government must regulate their use and monitor their distribution. However, the Minister of Health and other medical organizations have not included any regulations regarding e-cigarettes or vapes in their laws, scientific evidence is still needed to support this policy.
2	Firdi Devin	The Impact of Vape on Health in Gen Z	Scientific journal of psychology and public health Vol 1, No 1, (January - June 2023) Pages: 20-25	Qualitative descriptive research method	This study can be concluded that even though they do not actively smoke, Gen Z is not aware that they have also been passive smokers. They are also

					aware of the negative impacts and risks associated with vaping, including the potential for addiction and the development of lipoid pneumonia, which is a blockage of fat in the lungs. The reason for addiction is because nicotine, found in vape, can stimulate the brain to release large amounts of the hormone dopamine, which can cause dependence.
3	Raudhatun Mahirah, Basri Aramico, Vera Nashira Arifin	Factors Associated with Electronic Smoking (Vaping) Behavior in College Students	Journal of Public Health Innovation, 5(1), 38–47 Year 2018	This study uses a case control study method.	This study concluded that the factors that influence students to continue vaping or using e-cigarettes are because they are addicted to nicotine contained in e-cigarettes. In addition to following the trends and lives of young people in the millennial era, they admit that vaping has now become a trend, familiar in society, and a special attraction when gathering on campus.
4	Ferosvi Nada Adhima El Hasna, Kusyogo Cahyo, Laksmono Widagdo	FACTORS RELATED TO THE USE OF ELECTRIC CIGARETTES IN BEGINNER SMOKERS IN SENIOR HIGH SCHOOL IN BEKASI CITY	PUBLIC HEALTH JOURNAL (e-Journal) Volume 5, Number 3, July 2017	The research used is descriptive analytical research with a quantitative	It can be concluded that due to their belief that smoking is affordable, some teenagers who have never smoked before may start doing so. Teenagers may become more smokers due to peer pressure.

				approach method.	
5	Onor,Ifeanyi Chukwu O, Stirling, Daniel L.  Williams, Shandrika R. Bediako, Daniel  Borghol, Amne	Clinical effects of cigarette smoking: Epidemiologic impact and review of pharmacotherapy options	International Journal of Environmental Research and Public Health. September 2017	Using literature review method	This rapid increase in nicotine levels makes smoking the most reinforcing and addictive form of tobacco use. The epidemiological impact and adverse health effects of smoking are significant. Reducing the prevalence of smoking and the diseases it causes is critical.
6	Monifa Putri, Fitriyani Bahriyah	FACTORS INFLUENCING THE USE OF ELECTRIC CIGARETTES (VAPE) AMONG STUDENTS OF INDRAGIRI INSTITUTE OF TECHNOLOGY AND BUSINESS	MIDWIFERY ZONE – Vol. 13 No. 3 August 2023	This study  Uses an analytical method with a cross- sectional approach.	This study concludes that there is a significant influence between family environment, lifestyle, and social environment factors on the use of electronic cigarettes (vape) in students of the Indragiri Institute of Technology and Business. This is based on the results of the chi-square test which shows a p value of 0.00 for the three factors, which means there is a statistically significant relationship.
7	Yola Febrina, Yesica Devis, Syukaisih	Electronic Cigarette User Behavior and Its Impact on Social, Economic, and Health Life in the Pekanbaru Vapers Community in 2020	Public Health Media, Volume 1, Number 2, 2021	This type of research is Qualitative Analytical	This study provides several factors, namely Community Effect Knowledge: Many people in the vaper community do not know about the effects of e- cigarettes. This suggests that more education is needed. User Behavior: Most

					<p>community members now use e-cigarettes every day after previously using conventional cigarettes.</p> <p>Attitudes Towards Smoking: Most community members consider smoking to be an individual right and personal choice.</p> <p>Social Impact: Using e-cigarettes makes people more confident and increases social solidarity.</p> <p>Economic Impact: People feel that consuming e-cigarettes is more economical than consuming conventional cigarettes.</p> <p>Health Impact: Although most participants were not aware of the risks of e-cigarettes, they felt better.</p>
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8	<p>Dr Andrew Barnes, Dr Nuan Ping Cheah, Mr Caleb Clawson,</p> <p>, Dr Laura E. Dr Danielle R. Dr Enrico Davoli, Dr Thomas Eissen berg, Dr Ahmad El- Hellani, Dr Ranti Fayokun, Dr Frank Henkler-Stephani, Ms Federica Mattioli, Ms Marine Perraudin, Dr Armando Peruga, Ms Meagan Robichaud,</p> <p>Ms Moira Sy.</p>	<p>WHO study group on tobacco product regulation</p>	<p>World Health Organization. Year 2021</p>	<p>This study Uses the Narrative Literature Review method.</p>	<p>This study concluded that the influencing factors were its attractive appearance and various flavors, Social Impact and User Behavior ENDS are often used by young people and teenagers. However, most ENDS users do not fully understand the problems that exist in smokers; instead, they switch between conventional cigarettes and electronic cigarettes.</p>
9	<p>Musliyah Syahrawani, Mardiati Nadjib</p>	<p>Determinants of e- cigarettesin Indonesia: SUSENAS</p> <p>(National Socio-Economic Survey) data</p>	<p>Community Medicine News (BKM Journal of Community Medicine and Public Health</p> <p>Volume 35</p> <p>Number 2 Year 2019)</p>	<p>This study Uses cross sectional</p>	<p>This study concludes that socio-economic is a factor related to smoking conditions and smoking behavior. We have a relationship with e-cigarette smoking behavior, and in Indonesia, the e-cigarette smoking age group is dominated by people aged 25 to 45 years and people aged 45 to 65 years. In addition, those with economic status up to</p>



					level 5 have a significant relationship with the use electronic communication devices. The current tobacco use factor is active cigarettes that have smoked and those who have not smoked, which contributes to the performance of e-cigarettes.
10	<p>Hsiao-Yun Lee, Hsien-Chang</p> <p>Lin, Dong-Chul</p> <p>Seo, David K Lohrmann</p>	Determinants associated with E- cigarette adoption and use intention among college students	Addictive Behaviors, February 2017	This research uses quantitative methods	<p>This study concluded that Approximately 40% of respondents said they had previously used e-cigarettes. According to the approval of e-cigarettes, e-cigarettes can be used more socially than traditional cigarettes (relative risk ratio [RRR] = 1.43, <math>p &lt; 0.01</math>). Unique features, such as e-cigarettes (<math>ps &lt; 0.05</math>), did not hinder the students' experience. Participants described positive sensory experiences as an indication of e-cigarette use (<math>ps &lt; 0.01</math>) and compared it more closely to their health (<math>ps &lt; 0.05</math>) when asked about the possibility of e-cigarette use.</p>
11	Winda, Intan Sari, Rifki A, Fionaliza	FACTORS RELATED TO SMOKING BEHAVIOR IN STUDENTS OF THE FACULTY OF MEDICINE,	HEME (Health Medical Journal), Vol II No 1 January 2020	Penelitian deskriptif dengan desain cross sectional	According to this study, it can be concluded that the factors that influence someone to use e-cigarettes are as follows. Because of

		BAITURRAHMA H UNIVERSITY			behavioral factors, due to lack of knowledge about the dangers of smoking, because of the relationship between parental smoking behavior and smoking behavior in their children, the influence of peers, feelings of excessive stress and making someone use vape, the last factor is that someone uses vape because of advertising promotions.
12	Aep Saepulloh, Muhammad Iqbal, Rintan Oktaria, Afrita	The Phenomenon of Vape Smokers and Its Impact on Generation Z's Lifestyle	Inovasi Manajemen bisnis. Volume 6, No. 1 Tahun 2023	The method useds observation	This study shows that Vaping and Smoking Lifestyle The use of vapes or electronic cigarettes is increasingly popular among Generation Z consumers. This cannot be separated from the appearance displayed by vapers, with the most frequently stated motivation being "wanting to look stunning". Lifestyle Vape users want to show their self- image as modern, mature, macho, dashing, brave, and different from previous generations. Traditional smoking and vaping habits are rampant among Generation Z in Depok. Concerns about the impact of vaping and electronic cigarette use on society and health are increasing. The negative impacts

					of vaping on health, including addiction and increased risk of asthma, emphasize the need for regulation and public knowledge to address this issue.
13	Samantha Shiplo, Christine D Czoli, David Hammond	E-cigarette use in Canada: prevalence and patterns of use in a regulated market	BMJ Journals, tahun 2015	Online cross-sectional survey	Concludes Use of Nicotine-Containing and Flavored Products: While there are a wide variety of nicotine products, respondents reported using nicotine-containing e-cigarettes. Fruit flavors were the most common, especially among young smokers. Implications for Regulation and Public Health: While e-cigarette use may be helpful in quitting traditional cigarette smoking, more research is needed to fully understand its impact on public health and long-term outcomes.
14.	Patricia Simon, Deepa R. Camenga, Meghan E. Morean, Grace Kong, Krysten W. Bold,	Socioeconomic status and Adolescent e-cigarette use: The mediating role of e-cigarette advertisement exposure	preventive Medicine Volume 112, July 2018	This research uses quantitative methods	This journal concludes/hypothesizes that adolescents from lower socioeconomic groups will have a greater fondness for e-cigarettes and this fondness will be related to the use of larger e-cigarettes.

	Dana  A. Cavallo, Su chitra Krishnan  -Sarin				
15	Siti rahayu	THE ROLE OF POLICY ACTORS IN THE IMPLEMENTA TION OF REGIONAL REGULATION ON AIR  POLLUTION CONTROL:  A CASE STUDY OF NON  SMOKING AREA IN THE CENTER FOR BIOMEDICAL AND BASIC  TECHNOLOGY OF HEALTH, DKI JAKARTA	<a href="http://www.ictoh.tcsc-indonesia.org">http://www.ictoh.tcsc-indonesia.org</a>  Tahun 2022	Qualitative research methods	This journal discusses the assessment of the role of policy actors in the implementation of cigarette smoke regulations in DKI Jakarta. In general, the implementation of the smoking ban has reached an optimal level at the bureaucratic level; however, there are still problems such as budget, human resources, and the influence of political and social actors. Other problems also come from bureaucratic politics influenced by environmental factors and low levels of social trust among the private sector. Both traditional and social media are not the best at promoting this. In conclusion, the relationship between policy actors forms a "policy network", and if one actor does not try to promise well, it can be an obstacle to policy implementation.

Of all the factors found, environmental factors and peer influence are most often mentioned and stated as the influence of generation z to use e-cigarettes (vape) in various literatures found. Peers are more dominant in influencing the behavior of conventional cigarette users to use e-cigarettes (vape), especially in generation z. For example, a study by (Elsa & Nadjib, 2019) According to data from a study on cigarette use in Indonesia, 2.1% of respondents, or 47% of those aged 25 to 45 years, use e-cigarettes. According to this study, the age group over 24 years in Indonesia uses e-cigarettes more often than teenagers under 24 years. In contrast to a number of previous publications that show that teenagers (aged 15–24 years) are the main users of e-cigarettes, Constantine's research reveals that older adults are less likely to use e-cigarettes than those in the 15–39 age range (Simon et al., 2018). According to a study in Germany, adolescents mainly use e-cigarettes because they are safer than traditional cigarettes, while adults and older age groups believe that e-cigarettes are as harmful as traditional cigarettes. The reason generation z prefers e-cigarettes is because they are unique, have a variety of flavors, and

the additional energy uses USB so it is easy to use (Lee et al., 2017). This is contrary to research that found that using e-cigarettes can help people quit smoking tobacco (Shiplo et al., 2015).

According to (Rahayu, 2022) Many factors influence e-cigarette users, and understanding these factors is needed to reduce e-cigarette use. These factors include age, gender, perception, knowledge, availability of supplies, financial status, and family and friend support. There are other bigger factors, namely the group environment and the individual itself, in addition to dependence on e-cigarettes can make users less aware of the risks (Hasnah et al., 2017) According to users, smoking can make them feel happy, but it can also have a number of negative impacts on their own health and that of others. Other problems such as social, financial, and environmental burdens can also arise from smoking. In fact, smoking has become a challenging global health problem (Yola Febrina, Yesica Devis, 2021).

According to Tuasikal (2012), leaving useless and harmful things is one sign that a good person has converted to Islam. He only does things in his daily life that are good for the world and the hereafter. Likewise, vice

versa for someone who is not a good Muslim. Abu Hurairah radhiyallahu 'anhu, from the Prophet sallallahu 'alaihi wa sallam, he said;

"Among the virtues of a Muslim is to leave things that are not beneficial" (HR. Tirmidhi no. 2317, Ibn Majah no. 3976. Shaykh Al Albani said that this hadith is authentic).

Yassin (2019) also said that in another hadith it is also explained, the Messenger of Allah sallallahu 'alaihi wa sallam said; "It is not permissible to start giving bad results (mudhorot) to others, let alone repay them." (HR. Ibn Majah no. 2340, Ad Daruquthni 3/77, Al Baihaqi 6/69, Al Hakim 2/66).

The explanation of the two hadiths above emphasizes the relationship between the two materials, namely vape and religious studies. Because the explanation of the dangers of vape is much more complicated than its benefits. In addition, the hadith above explains that as Muslims, we must avoid things that are not beneficial, we must not hurt or harm others. As a Muslim, we must be able to restrain ourselves from bad habits such as using vape. Does that make sense? Yes, Vaping can even harm our own health or others because it does not provide many health benefits. (Devin &

Mabrur, 2023).

## **CONCLUSIONS AND SUGGESTIONS**

Based on the findings of the 15 literature reviews above, there are several factors that influence the behavior that motivates e-cigarette (or vape) users in the Generation Z lifestyle, including: First, peer pressure. Second, following global trends that interest Generation Z. Third, the impact of the social environment. Fourth, Gen Z considers the use of e-cigarettes to be more cost-effective than conventional cigarettes. Factors that influence someone to buy or use e-cigarettes (vape) also include lifestyle. Therefore, smokers—both those who use e-cigarettes and conventional cigarettes—should be informed about the risks and consequences of continuing to smoke, so that they understand that the actions they are currently taking are actually increasing their mortality rate. Therefore, the role of parents is very important to prevent the emergence of new smokers, especially among Generation Z who are currently busy with vaping.

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## REFERENCE

- Afifah, N. (2022). Studi Identifikasi Faktor-faktor yang Mempengaruhi Perilaku Merokok Pada Remaja. In *Universitas Medan Area*.
- Aisyah, W. N., Rahayu, A. C., Jasmine, D., Ciptaningrum, A. D., & Herbawani, C. K. (2024). Factor Influencing E-Cigarette Use and Its Impact on Adolescent Lung Health : Literature Review. *Miracle Journal of Public Health (MJPH)*, 7(2), 117–190. <https://doi.org/10.36566/mjph.v7i2.372>
- Akbar, P. (2021). Faktor Yang Mempengaruhi Pengguna (Rokok Elektrik) Pada Mahasiswa. *Jurnal Universitas Muhammadiyah Surakarta*, 1–20.
- Anggraeni, P., & Piter. (2019). Studi deskriptif pengguna rokok elektrik di kecamatan tanjung priok. *Social Clinical Pharmacy Indonesia Journal Vol*, 4(2), 30–36.
- Bagus, D., & Cahyaningrum, C. P. E. (2023). Perbedaan Patologi Anatomi Tingkat Kerusakan Alveoli Paru dengan Paparan Asap Rokok Konvensional dan Rokok Elektrik. *ARTERI : Jurnal Ilmu Kesehatan*, 4(1), 29–36. <https://doi.org/10.37148/arteri.v4i1.245>
- Diana, K. N., Dirgandiana, M., Illahi, R. A., Ishal, I. T., Mariam, S., & Sunarti, S. (2020). Hubungan Teman Sebaya dengan Perilaku Penggunaan Rokok Elektrik di Kalangan Mahasiswa. *Jurnal Dunia Kesmas*, 9(4), 434–439. <https://doi.org/10.33024/jdk.v9i4.3077>
- Fakhreni, & Siregar, P. apriadi. (2023). Hubungan Pengetahuan Dan Persepsi Penggunaan Rokok Elektrik (Vape) Pada Remaja Wanita Di Kota Medan. *JK: Jurnal Kesehatan*, 1(1), 201–207.
- Hasna, F. N. A. El, Cahyo, K., & Widagdo, L. (2017). Faktor-faktor yang berhubungan dengan penggunaan rokok elektrik. *Jurnal Kesehatan Masyarakat (e-Journal)*, 5(3), 548–557.
- Hidayati, I. W., & Kurwiyah, N. (2019). Faktor Yang Berhubungan dengan Upaya Berhenti Merokok pada Remaja Pengguna Rokok Elektrik Di Komunitas Vapepackers Jakarta Pusat. *Indonesian Journal of Nursing Science and Practice*, 2(2), 73–78.
- Hutapea, D. S. M., & Fasya, T. K. (2021). Rokok Elektrik (Vape) sebagai Gaya Hidup Perokok Masa Kini di Kota Lhokseumawe. *Jurnal Ilmu Sosial Dan Ilmu Politik Malikussaleh (JSPM)*, 2(1), 92–108. <https://doi.org/10.29103/jspm.v2i1.3696>
- Komasari, D., & Helmi, A. F. (2020). Faktor Faktor Penyebab Merokok Pada Anak. *Jurnal Psikologi*, 27(1), 37–47.
- Maharani, A., Wahyuni, S., & Hanum, N. A. (2021). Gambaran Pengetahuan Tentang Pengaruh Rokok Elektrik Terhadap

- Kesehatan Gigi Dan Mulut Pada Komunitas Vapor Di Kota Palembang. *Jurnal Kesehatan Gigi Dan Mulut (JKGM)*, 3(1), 44–47.  
<https://doi.org/10.36086/jkgm.v3i1.759>
- Putra, D. R. B. (2024). *Produksi Iklan Layanan Masyarakat Dampak Rokok Elektrik Terhadap Generasi Z*. Universitas Kriten Satya Wacana.
- Putri, M., & Bahriyah, F. (2023). Faktor-Faktor Yang Mempengaruhi Penggunaan Rokok Elektrik (Vape) Pada Mahasiswa Institut Teknologi Dan Bisnis Indragiri. *Zona Kebidanan*, 13(3), 10.
- Sinarsi, Siregar, I. M., & Ramadhani, S. (2020). Penyuluhan Bahaya Merokok Guna Meningkatkan Kesadaran Akan Dampak Psikologis Pada Siswa di SMP Pabaku Stabat. *Jurnal Pengabdian Masyarakat Universitas Sari Mutiara Indonesia*, 1(2), 347–358.
- Siregar, N. R., Rismawany, P., Azzahra, S., Sari, Y., & Medan, U. N. (2024). Kajian Bahaya Kimia Berbahaya Pada Rokok Elektrik Serta Dampaknya Pada Kesehatan. *Jurnal Ilmiah Multidisiplin Terpadu*, 8(6), 553–570.
- Tandah, M. R., Diana, K., Ambianti, N., & Zainal, S. F. (2024). Edukasi Bahaya Penggunaan Rokok Konvensional dan Elektrik Pada Remaja di SMP Negeri 7 Palu. *Al Khidmat : Jurnal Ilmiah Pengabdian Kepada Masyarakat*, 7(2), 35–41.
- Timur, C., & Nurhadiyanto, L. (2024). Tinjauan Penggunaan Rokok Elektrik di Kalangan Remaja dalam Perspektif Teori Differential Association Theory. *Action Research Literate*, 8(8), 2229–2233.  
<https://doi.org/10.46799/ar1.v8i8.502>
- Wahyudi, M. G., Asmuji, & Wahyuni, S. (2021). Hubungan Penggunaan Rokok Elektrik Vapor dengan Tidal Volume Pada Remaja di Desa Lumuan Kecamatan Botolinggo Kabupaten Bondowoso. *Universitas Muhammadiyah Jember*, 399–405.
- Wirajaya, M. K. M., Farmani, P. I., & Laksmi, P. A. (2024). Determinan Penggunaan Rokok Elektrik (Vape) pada Kalangan Remaja di Indonesia. *Jurnal Kesehatan Komunitas (Journal of Community Health)*, 10(2), 237–245



