



Community Service Journal of Indonesia

Division of Research and Community Service
Kerta Cendekia Nursing Academy

<https://ejournal-kertacendekia.id/index.php/csji/index>

Community Service Journal of Indonesia 7 (2) (2025):

Doi: <https://doi.org/10.36720/csji.v7i2.845>

VAPE IS NOT A SAFE ALTERNATIVE: STRENGTHENING ADOLESCENTS' AWARENESS THROUGH MEDICAL AND ISLAMIC-BASED EDUCATION AT SMK PGRI 13 SURABAYA

Dewi Masithah^{1*}, Mia Puspitasari², Muhammad Fifin Kombih¹, Sabrina Cantika Aura³, Puspita Rahmatul Jinan³, Ain Darojah Siddiq Ramadhana⁴

¹ Department of Public Health, Faculty of Medicine, Universitas Nahdlatul Ulama Surabaya

² Department of Internal Medicine, Faculty of Medicine, Universitas Nahdlatul Ulama Surabaya

³ Faculty of Medicine, Universitas Nahdlatul Ulama Surabaya

⁴ Research and Community Service Unit, Faculty of Medicine, Universitas Nahdlatul Ulama Surabaya

* Correspondence

Dewi Masithah

Faculty of Medicine, Universitas Nahdlatul Ulama Surabaya

Email: dewi.masithah@unusa.ac.id

Received: November 27th, 2025 ; Revised: December 19th, 2025 ; Accepted: December 22nd, 2025

ABSTRACT

In recent years, a worrying shift has occurred from conventional cigarettes to electronic cigarettes (vapes), which are often perceived as safer. However, evidence indicates that vape liquids contain nicotine, formaldehyde, and toxic chemicals capable of causing addiction, neurodevelopmental harm, and lung injury in adolescents. This community service project aimed to increase students' awareness regarding the dangers of conventional cigarettes and electronic cigarettes (vapes) through an integrated medical and Islamic-based educational approach. The program was conducted at SMK PGRI 13 Surabaya and included interactive lectures, video presentations, group discussions, leaflet distribution, personal reflection, selection of youth anti-smoking ambassadors, and basic health screening. Knowledge evaluation was conducted using pre and posttests. The results showed an increase in students' knowledge scores from 77 to 87 (a 12% improvement). Nutritional status assessment among 76 students showed 36.8% were in the normal BMI category, 26.3% underweight, 11.8% overweight, and 25% obese. Several active smokers expressed commitment to quitting smoking, and student anti-smoking ambassadors were appointed to promote a smoke-free environment. This program demonstrates that integrating health education with Islamic values effectively enhances adolescents' awareness and motivation to avoid smoking and vaping. The sustainability of the initiative is supported by school involvement and the empowerment of peer ambassadors.

Keywords: Adolescent Health, Health Promotion, Islamic Perspective, Smoking Behavior, Vaping Prevention

INTRODUCTION

Adolescent smoking remains a major public health concern in Indonesia, with tobacco consumption contributing significantly to morbidity and mortality. Cigarettes contain more than 4,000 harmful chemical substances, including nicotine, tar, and carcinogens that damage respiratory and cardiovascular health (Nidianti et al., 2022). The World Health Organization has stated that tobacco use causes cancers, heart disease, respiratory disorders, infertility, and sudden infant death syndrome, making smoking among youth an urgent issue to address (Mukri, 2010).

In recent years, a worrying shift has occurred from conventional cigarettes to electronic cigarettes (vapes), which are often perceived as safer. However, evidence indicates that vape liquids contain nicotine, formaldehyde, and toxic chemicals capable of causing addiction, neurodevelopmental harm, and lung injury in adolescents (Adiba & Arsanti, 2023). School-based data support this increasing trend, reflecting national concerns about the rising popularity of vaping products among youth (Gardner et al., 2023; Gardner, Rethy, & Robledo, 2024).

From an Islamic ethical perspective, smoking contradicts the principle of *hifzh al-nafs* (preservation of life) and the rule *la dharar wa la dhirar* (do not harm yourself or others). The Qur'an prohibits self-destruction and wasteful spending, reinforcing the moral stance against smoking (Mukri, 2010). The Indonesian Council of Ulama (MUI) has issued a fatwa declaring smoking, especially in public

places or by minors, as prohibited (Umniyatun & Nurmansyah, 2020).

Social environment factors further influence youth smoking behavior. A previous study found that 82% of adolescents in Surabaya supported smoking behavior, and 63% of males aged 18–21 were active smokers (Amalizar et al., 2023). Economic considerations also show a concerning pattern: household spending on cigarettes in Indonesia exceeds expenses for education and health (BPS, 2021). These data emphasize that smoking is not only a health issue but also a religious, behavioral, and socioeconomic problem.

Despite government regulations and smoke-free zone enforcement in Surabaya, including fines and social sanctions (Salman & Purba, 2025), adolescent smoking behavior persists, particularly in school environments. Observation at SMK PGRI 13 Surabaya revealed the presence of student smokers and vape users, as well as misconceptions about perceived safety of vaping.

Therefore, this community service program was designed to provide integrated health-religious education to improve knowledge, attitudes, and preventive behavior among high-school students regarding tobacco and vaping hazards. Integrating medical explanations with Islamic values aims to strengthen personal awareness, moral responsibility, and commitment to maintaining health.

OBJECTIVES

The primary objective of this community service program was to strengthen students' understanding and awareness regarding the dangers of

conventional cigarettes and electronic cigarettes (vaping) through a comprehensive education approach. Recognizing that adolescents are particularly susceptible to peer influence, misinformation, and aggressive marketing of vaping products, the program sought to provide scientifically grounded knowledge about the short- and long-term health risks associated with nicotine exposure and harmful chemical inhalation.

In addition to the biomedical perspective, the program integrated Islamic ethical principles to reinforce internal motivation for behavioral change. By emphasizing concepts such as *hifzh al-nafs* (the preservation of life) and the prohibition of self-harm and wasteful behavior, the initiative aimed to cultivate a moral and religious foundation for students to avoid smoking and vaping practices.

The program also aimed to empower students through experiential learning and personal reflection. Health screening activities, including blood pressure measurement, oxygen saturation checks, and *Body Mass Index* (BMI) assessments, were incorporated to enable students to recognize their current health status and understand the importance of preventive behavior. Furthermore, through group dialogue and reflection activities, students were encouraged to express personal views, internalize health messages, and build commitment to healthy behavioral choices.

Beyond increasing knowledge and awareness, the program intended to establish a supportive health-promoting environment within the school. By appointing motivated students as anti-smoking ambassadors, the initiative aimed to foster peer-led advocacy and sustain positive behavioral influence beyond the intervention period. Ultimately, this

program sought not only to improve students' health literacy but also to create a sustainable culture of health consciousness and smoke-free attitudes among adolescents at SMK PGRI 13 Surabaya.

PLAN OF ACTION

The community service program was carried out through a structured and collaborative approach involving the school, students, and academic team. Prior to implementation, the team conducted a preliminary observation at SMK PGRI 13 Surabaya to assess students' smoking behavior and their understanding of the risks associated with cigarettes and electronic cigarettes. This initial assessment also served to identify the misconceptions students held, particularly the belief that vaping is a safer alternative to conventional smoking.

Coordination with school administrators and teachers was established early to ensure smooth implementation and to integrate the program into the school's learning schedule. Educational materials combining medical facts and Islamic ethical perspectives were then developed by the academic team, consisting of physicians and Islamic scholars. These materials included PowerPoint slides, posters, a short educational video on tobacco and vape hazards, and informational leaflets designed for students and their families.

The community service intervention consisted of a comprehensive educational session delivered in an interactive format. Students participated in a face-to-face seminar in the school hall, where facilitators presented health consequences of smoking and vaping, including respiratory, cardiovascular, metabolic, and neurological risks. Islamic values and

ethical teachings regarding self-preservation (*hifzh al-nafs*), avoiding harm (*la dharar wa la dhirar*), and responsible personal conduct were integrated throughout the session to strengthen internal motivation for behavior change. Students were encouraged to express their views and experiences, and an open discussion allowed them to ask questions and share their reflections.

To reinforce awareness at an individual level, a simple health screening was conducted for participating students. Measurements included blood pressure, oxygen saturation, body weight, and height, followed by Body Mass Index (BMI) calculation. These examinations not only helped students identify their current health status but also provided tangible evidence of the importance of maintaining healthy lifestyles and avoiding harmful habits such as smoking.

At the end of the educational session, students were invited to write personal reflections regarding smoking and vaping behavior. Those who demonstrated strong commitment and leadership potential were appointed as anti-smoking ambassadors. Their role was to promote healthy behavior and become peer advocates for a smoke-free school environment. Educational posters and leaflets were distributed for continued reinforcement, and teachers were encouraged to display them in strategic school areas.

The effectiveness of the program was measured using pre-test and post-test evaluations. Knowledge scores before and after the intervention were compared to assess learning outcomes, while observational notes, student reflections, and ambassador participation supported qualitative evaluation. This approach ensured that both cognitive improvement

and behavioral commitment were captured as program outcomes.

RESULTS AND DISCUSSION

The implementation of the integrated health and Islamic-based education program at SMK PGRI 13 Surabaya proceeded smoothly and was well-received by both students and school staff. A total of 76 students participated actively throughout the intervention, demonstrating high enthusiasm during the educational session, group discussion, and health screening activities. The openness of students to engage in dialogue and share personal experiences indicated the relevance of the topic to their daily lives and peer environment, consistent with prior findings that adolescent smoking behavior is strongly influenced by social context and peer norms (Amalizar et al., 2023).

Improvement in Knowledge and Awareness

The knowledge assessment conducted before and after the intervention showed a notable improvement in students' understanding of the health risks associated with cigarettes and electronic cigarettes. The average pre-test score was 77, increasing to 87 in the post-test, indicating approximately a 12% improvement. This reinforces the effectiveness of structured school-based education in improving tobacco-related knowledge among adolescents, similar to outcomes reported by Hidayat et al. (2022).

Importantly, the integration of Islamic values throughout the session strengthened students' internal motivation to avoid smoking. The combination of biomedical information with religious guidance aligns with findings from Umniyatun and Nurmansyah (2020), who reported that faith-based reinforcement

increases anti-smoking adherence among Muslim youth. Religious framing around *hifzh al-nafs* (protection of life) and avoidance of self-harm (*la dharar wa la dhirar*) amplifies personal responsibility and moral commitment to healthy behaviors (Mukri, 2010; Adiba & Arsanti, 2023).

Health Screening Outcomes

Simple health screening activities were conducted to reinforce students' awareness of personal health status. BMI analysis revealed varied nutritional status among participants, with 36.8% classified as normal, 26.3% underweight, 11.8% overweight, and 25% obese. These results indicate that adolescent health issues in this population include both undernutrition and overnutrition risks — a pattern consistent with recent studies on youth health trends in Indonesia (Nidianti et al., 2022).

Direct feedback from health measurements helped students internalize the need for preventive behavior. Real-time exposure to personal biometric data has been shown to enhance awareness and increase readiness to modify risky behavior (Masithah et al., 2023). Students reported increased concern about their health and expressed greater intention to improve lifestyle choices.

Behavioral Attitude Shifts and Peer Leadership

In addition to knowledge gains, shifts in attitudes toward smoking and vaping were observed. Several students who were active smokers expressed intention to reduce or stop smoking following the intervention. The establishment of student anti-smoking ambassadors further strengthened behavior change potential through peer-led influence. Previous research highlights that peer education is a powerful strategy in adolescent health

promotion, particularly in anti-tobacco initiatives (Puspitasari et al., 2023; Gardner et al., 2023).

The ambassadors appointed in this program are expected to serve as role models and catalysts for sustaining anti-smoking messages within the school environment. This aligns with behavior-change frameworks emphasizing social support and peer reinforcement in adolescent populations (Truth Initiative, 2024).

School Engagement and Sustainability

Teachers and school administrators expressed positive feedback, demonstrating strong institutional support. Educational posters and leaflets remain displayed within the school, enabling ongoing exposure to health messages. Engagement of school authorities has been recognized as a key factor in ensuring sustainability of school-based health programs (Gardner, Rethy, & Robledo, 2024).

Collectively, these outcomes demonstrate that combining medical knowledge, faith-based values, experiential learning, and peer empowerment yields a comprehensive and effective strategy for tobacco prevention among adolescents.

CONCLUSION

This community service program successfully improved students' knowledge, awareness, and attitudes regarding the dangers of smoking and vaping through an integrated medical and Islamic education approach. The significant increase in students' post-test scores demonstrates that structured school-based interventions are effective in enhancing tobacco-related health literacy among adolescents, consistent with previous findings on youth health education

programs in Indonesia (Hidayat et al., 2022; Nidianti et al., 2022).

Beyond cognitive improvement, the incorporation of Islamic ethical principles such as *hifzh al-nafs* and the prohibition of self-harm strengthened internal motivation for behavioral change, aligning with earlier studies that highlight the influence of religious values on smoking attitudes among Muslim adolescents (Umniyatun & Nurmansyah, 2020; Adiba & Arsanti, 2023; Mukri, 2010). The appointment of student anti-smoking ambassadors further reinforced the behavioral impact of the program by establishing peer-driven advocacy, a strategy supported by youth health-promotion literature (Puspitasari et al., 2023; Gardner et al., 2023).

The results also revealed varied nutritional status among participating students, emphasizing the need for holistic school-based health programs that address smoking prevention alongside overall lifestyle and nutrition education. This finding echoes reports of dual-burden nutritional challenges among Indonesian adolescents (Nidianti et al., 2022).

Overall, the program demonstrates that a culturally grounded and spiritually aligned intervention model—combining medical insight, religious values, experiential learning, and peer support—can effectively guide adolescents toward healthier behavior and strengthen school-based health promotion systems. Sustained collaboration between educational institutions, healthcare educators, and student peer leaders is recommended to ensure long-term impact and replication in other school settings. Future initiatives may focus on digital health campaigns and follow-up monitoring to maintain momentum and support continuous behavior change.

REFERENCES

- Adiba, N. T., & Arsanti, M. (2023). Perilaku merokok dalam pandangan Islam. *Jurnal Teras Kesehatan*, 6(1), 29–38. <https://doi.org/10.38215/jtkes.v6i1.108>
- Amalizar, D., et al. (2023). *Smoking behavior trends among adolescents in Surabaya*. (Institutional source, internal data).
- Badan Pusat Statistik. (2021). *Pengeluaran rumah tangga untuk rokok di Indonesia*. BPS Indonesia.
- Gardner, L. A., Hides, L., Leung, R., Barrett, E., Newton, N. C., Chapman, C., ... Teesson, M. (2023). Co-design of the OurFutures Vaping programme: A school-based eHealth intervention to prevent e-cigarette use. *BMC Public Health*, 23(1), 1560. <https://doi.org/10.1186/s12889-023-15609-8>
- Gardner, A., Rethy, L., & Robledo, I. C. (2024). A systematic review and meta-analysis of school-based preventive interventions targeting e-cigarette use among adolescents. *Prevention Science*, 25(8), 1281–1298. <https://doi.org/10.1007/s11121-024-01730-6>
- Hidayat, M., Puspitasari, M., & Ramadhani, A. (2022). Efektivitas program edukasi berbasis komunitas dalam meningkatkan kesadaran bahaya merokok di Indonesia. *Jurnal Kesehatan Masyarakat*, 8(2), 105–120.
- Masithah, D., Firdaus, A. A. A., Hasina, S. N., Wikurendra, E. A., & Agnovianto, Y. (2023). *Metode eksperimen merokok dengan alat*

- sederhana sebagai upaya menurunkan perilaku merokok pada santri di PP. Al Hikam Bangkalan.* Universitas Nahdlatul Ulama Surabaya.
- Masithah, D., Widya, M., Prastini, M. S. A., Robbani, D. A., & Nusantara, A. A. T. (2025). Self-healing therapy untuk mengurangi perilaku merokok pada remaja di PP. Assalafi Al-Fithrah Surabaya. *Journal of Community Development Diversity, 1*(1).
- Mukri, M. (2010). Menyoal hukum merokok dalam perspektif hukum Islam. *Al-Manahij: Jurnal Kajian Hukum Islam, 4*(1), 91–112. <https://doi.org/10.24090/mnh.v4i1.3667>
- Nidianti, E., Lukiyono, Y. T., Masithah, D., Putri, B. A. R., Puspitasari, F., & Pertiwi, P. (2022). Peningkatan pengetahuan dan pemeriksaan oksigen dalam darah akibat paparan asap rokok di wilayah Surabaya. *Jurnal Pengabdian Kepada Masyarakat, 6*(1), 45–49.
- Puspitasari, M., Rahman, A., & Prasetyo, B. (2023). Video edukasi di media sosial untuk meningkatkan kesadaran bahaya rokok pada remaja. *Jurnal Promosi Kesehatan, 11*(2), 78–86.
- Salman, & Purba, D. (2025). *Implementasi Kawasan Tanpa Rokok di Surabaya.* Pending publication details.
- Truth Initiative. (2024). A vaping cessation text message program for adolescent e-cigarette users: A randomized clinical trial. *JAMA, 332*(6), 543–552. <https://doi.org/10.1001/jama.2024.11057>
- Umniyatun, Y., & Nurmansyah, M. I. (2020). Keyakinan agama dan hubungannya dengan perilaku merokok pada pelajar sekolah menengah atas Muhammadiyah di Kota Depok. *Journal of Religion and Public Health, 1*(1), 42–46. <https://doi.org/10.15408/jrph.v1i1.14146>