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SEKOLAH Menengah Kebangsaan Desa Cempaka, Nilai, Negeri Sembilan, the venue of the program.



Dr. Muhammad Fairuz Azmi, Rydah Hykal, Muhammad 'Ammar Muaddib Razaly, Haikal Zuhdi Zulkefli, Muhammad Ihtisyam Mohammad Niza & Dr. Aisya Natasya Musa

The rising prevalence of vaping among Malaysian teenagers continues to present a significant challenge to public health efforts. Recognising this trend, a group of Year 2 medical students, Rydah Hykal, Muhammad 'Ammar Muaddib Razaly, Haikal Zuhdi Zulkefli, and Muhammad Ihtisyam Mohammad Niza, designed and delivered a structured awareness programme for 80 Form 4 students at Sekolah

STRENGTHENING ADOLESCENT HEALTH LITERACY THROUGH A STUDENT-LED VAPING PROGRAMME

Menengah Kebangsaan Desa Cempaka, Negeri Sembilan. Guided by their supervisor, Dr. Muhammad Fairuz Azmi, this initiative formed part of their Pre-Clinical Elective and aimed to strengthen students' understanding of the health risks associated with vaping.

The project was developed in response to data from the National Health and Morbidity

Survey (NHMS) 2022, which reported that 14.9% of Malaysian adolescents aged 13–17 are current e-cigarette users, with many initiating use before age of fourteen¹. Despite being marketed as a safer alternative to cigarette smoking, vape liquids contain harmful substances such as nicotine, acrolein, and formaldehyde—chemicals that contribute to respiratory injury,

cardiovascular risks, addiction, and conditions like EVALI (e-cigarette or vaping-associated lung injury)². The students also highlighted newer concerns, including drug-adulterated vape products increasingly found in the market.

To address these issues, the student team developed an engaging, interactive educational module. Using Canva-designed slides, they conducted a session that included discussions, role-play scenarios, quizzes, and short activities designed to help students reflect on peer pressure and decision-making. The content underwent review by a Respiratory Medicine specialist, Dr Aisya Natasya Musa to ensure accuracy and alignment with current evidence. The lively and student-centred format created a supportive learning environment, further enhanced by small incentives for active participation.

To evaluate impact, pre- and post-intervention questionnaires were administered. The findings demonstrated clear improvements in students' understanding



YEAR 2 Medical students with participants of the vaping awareness programme, who are form 4 students of Sekolah Menengah Kebangsaan Desa Cempaka



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was already strong on specific questions, suggesting that students had prior exposure to basic information about nicotine and EVALI. Nevertheless, the post-test results showed statistically



AWARDED first-runner up for non-clinical attachment category from Assoc. Prof. Dr. Hazlyna Baharudin, Deputy Dean for Academic Affairs.

significant gains for several items, reinforcing the effectiveness of the team’s approach.

Student feedback further underscored the programme’s success. Likert-scale scores ranged from 3.85 to 3.96 out of 4, with high satisfaction across all domains. Participants reported feeling more aware of vaping risks, more confident in avoiding the habit, and more motivated to share accurate information with friends and family. Many also expressed encouragement to adopt healthier lifestyle choices beyond the topic of vaping.

This elective project has provided UiTM medical students with valuable

hands-on experience in community health education, research methodology, data interpretation, teamwork, and leadership—skills crucial to their development as future clinicians and public health advocates. The project has also been awarded first runner-up for the non-clinical attachment category by the organiser.

This initiative demonstrates the impact that medical students can create when equipped with the right tools and guidance. As vaping continues to rise among adolescents, projects like this reflect UiTM’s commitment to producing healthcare professionals

who are not only academically strong but also socially responsible and proactive in health advocacy.

References:

1. Institute for Public Health. National Health and Morbidity Survey 2022: Adolescent Health Survey—Tobacco and E-Cigarette Use. Kuala Lumpur: Ministry of Health Malaysia; 2023.
2. Driezen P, Nordin ASA, Hairi FM, Yee A, Tajuddin NAA, Hasan SI, Danaee M, Kamaludin IS, Kaai SC, Yan M, Grey M, Quah ACK, Thompson ME, Fong GT. E-cigarette prevalence among Malaysian adults and types and flavors of e-cigarette products used by cigarette smokers who vape: Findings from the 2020 ITC Malaysia Survey. *Tob Induc Dis.* 2022;20:32. doi:10.18332/tid/146363