

***ELECTRONIC CIGARETTES AMONG UNIVERSITY STUDENTS: THE NECESSARY
CONVERGENCE BETWEEN PUBLIC HEALTH AND TECHNOLOGICAL INNOVATION***

***CIGARRILLOS ELECTRÓNICOS EN UNIVERSITARIOS: LA CONVERGENCIA NECESARIA
ENTRE SALUD PÚBLICA E INNOVACIÓN TECNOLÓGICA***

***CIGARROS ELETRÔNICOS ENTRE UNIVERSITÁRIOS: A CONVERGÊNCIA NECESSÁRIA
ENTRE SAÚDE PÚBLICA E INOVAÇÃO TECNOLÓGICA***

¹Ítalo Arão Pereira Ribeiro

¹Doutor em Enfermagem pela Universidade Federal do Piauí (UFPI). Editor Científico - Revista Enfermagem Atual in Derme (REAID). Rio de Janeiro, RJ, Brazil. Orcid: <https://orcid.org/0000-0003-0778-1447>

Corresponding Author

Ítalo Arão Pereira Ribeiro

Revista Enfermagem Atual in Derme – REAID - Rua México, 164, Sala 62, Centro – Rio de Janeiro, RJ - Brazil - CEP: 20031-143

E-mail: contato@revistaenfermagematual.com.br

Submission: 27-12-2025

Approval: 31-12-2025

The consumption of Electronic Nicotine Delivery Systems (ENDS) among university students has consolidated as a critical public health challenge, transcending geographic boundaries and cultural heterogeneities. In the Brazilian context, the prevalence of use reaches alarming levels, exceeding 24% in certain student populations. This phenomenon is primarily driven by curiosity and psychosocial peer pressure, persisting resiliently despite the normative rigor of national sanitary legislation, which prohibits their commercialization⁽¹⁾.

Complementing this scenario, investigations into students' health literacy levels reveal a concerning cognitive gap: misinformation regarding the intrinsic risks of vaping promotes the normalization of the habit. This reality converges with international evidence highlighting social and behavioral determinants, notably academic stress and transmedia exposure to pro-vaping content, as fundamental vectors for the initiation and maintenance of nicotine dependence^(2,3).

Notwithstanding the commercial discourse that historically positioned electronic cigarettes as harm reduction tools, the scientific evidence accumulated this decade points in the opposite direction. Recent clinical studies establish robust correlations between e-cigarette use and the development of respiratory and cardiovascular pathologies, as well as psychological disorders. Furthermore, a "gateway effect" is observed, in which the use of these devices increases the propensity for conventional smoking and other high-risk behaviors⁽⁴⁾. In Brazil, the persistence of



consumption despite the current prohibition configures a "silent epidemic" of nicotine that compromises individuals in the midst of their professional formation, including future actors in the health and science sectors⁽⁵⁾.

From this perspective, it is imperative that coping strategies evolve beyond conventional passive education interventions. Given the digital omnipresence in the daily lives of young people, health promotion must be mediated by disruptive and user-oriented technologies. Digital interventions, ranging from personalized messaging systems to interactive platforms based on social support, have demonstrated superior efficacy in smoking cessation, providing continuous and scalable monitoring that significantly increases abstinence rates⁽⁶⁾.

In this context, the university ecosystem offers a fertile environment for the implementation of these tools. The integration of cessation protocols into institutional platforms, combined with the use of Artificial Intelligence for behavioral data analysis, allows for the identification of vulnerability patterns and the execution of proactive, personalized interventions. Moreover, the employment of gamification elements and telemedical support can catalyze student engagement, transforming educational institutions into active agents of wellbeing promotion.

In summary, mitigating the impact of electronic cigarettes requires a transdisciplinary response that articulates scientific rigor, technological innovation, and robust educational policies. Only through a modern approach, sensitive to digital dynamics and grounded in evidence, will it be possible to reverse the trajectory of dependence among university students, ensuring the physical and mental health of future generations of professionals.

REFERENCES

1. Lucinda LMF, Mattos GA, Paticcié GF, Borges IAP, Camarano IM, Fagundes TACB, Orellana LC, Campos PIC. Prevalência e fatores associados com o uso de cigarro eletrônico em estudantes universitários: um estudo transversal. *Rev Médica Minas Gerais*. 2024; 34: e-34108. doi: <https://dx.doi.org/10.5935/2238-3182.2024e34108>
2. Costa NE, Pereira CV, García NG. Desinformação e alta prevalência do uso de cigarros eletrônicos entre estudantes universitários: um estudo transversal. *Res Society Development*. 2025; 14 (8): e7814849404. doi: <https://doi.org/10.33448/rsd-v14i8.49404>
3. Rocha-Ávila, LR, Núñez-Baila, MÁ, González-López, JR. E-Cigarette Use Among University Students: A Structured Literature Review of Health Risks, Behavioral and Social Determinants, and Nursing Implications. *Healthcare (Basel, Switzerland)*. 2025; 13(17): 2150. <https://doi.org/10.3390/healthcare13172150>



4. Golder S, Hartwell G, Barnett LM, Nash SG, Petticrew M, Glover R. Vaping and harm in young people: umbrella review. Tobacco Control. 2025; 0: 1-11. doi: <https://doi.org/10.1136/tc-2024-059219>
5. Jornal USP. Uso de nicotina cresce no Brasil com avanço dos cigarros eletrônicos entre jovens [Internet]. São Paulo: Jornal USP; 2025 [citado 2025 Dez 24]. Disponível em: <https://jornal.usp.br/radio-usp/uso-de-nicotina-cresce-no-brasil-com-avanco-dos-cigarros-eletronicos-entre-jovens>
6. Fonteyne K, Keys E, Hasan K, Struik L. Exploration of Digital Interventions for Vaping Cessation: Scoping Review J Med Internet Res. 2025;27:e76983. doi: <https://doi.org/10.2196/76983>

Funding and Acknowledgments:

None

Conflict of Interest Statement

Nothing to declare

Authorship Criteria (Author Contributions)

The author contributed substantially to the conception and/or planning of the study; 2. to the acquisition, analysis and/or interpretation of the data; 3. as well as to the drafting and/or critical review and final approval of the published version.

Scientific Editor: Francisco Mayron Morais Soares. Orcid: <https://orcid.org/0000-0001-7316-2519>

