

CADTH Reference List

Behaviourally Based Interventions for Vaping Prevention in Children and Adolescents

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Key Message

One non-randomized study was identified about the clinical effectiveness of behaviourally based interventions that are primary care–feasible or primary care–referable for vaping prevention in children and adolescents.

Research Question

What is the clinical effectiveness of behaviourally based interventions that are primary care–feasible or primary care–referable for vaping prevention in children and adolescents?

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Database of Systematic Reviews, the International HTA Database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine’s MeSH (Medical Subject Headings), and keywords. The main search concepts were vaping and vaping products, cessation, non-pharmacological interventions, and children or adolescents. CADTH-developed search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, or indirect treatment comparisons; and randomized controlled trials or controlled clinical trials. Where possible, retrieval was limited to the human population. The search was completed on May 31, 2022 and limited to English-language documents published since January 1, 2015. Internet links were provided, where available.

Selection Criteria

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in [Table 1](#). Full texts of study publications were not reviewed.

Table 1: Selection Criteria

Criteria	Description
Population	Children and adolescents (< 18 years of age)
Intervention	Behaviourally based interventions (e.g., education, counseling) that are primary care–feasible or primary care–referable
Comparator	No intervention (i.e., usual care, attention control, wait list)
Outcomes	Clinical effectiveness (e.g., incidence of electronic cigarette or vaping device use, safety [e.g., adverse events])
Study designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies

Results

One non-randomized study¹ was identified about the clinical effectiveness of behaviourally based interventions that are primary care–feasible or primary care–referable for vaping prevention in children and adolescents. No health technology assessments, systematic reviews, or randomized controlled trials were identified.

Additional references of potential interest that did not meet the inclusion criteria are provided in [Appendix 1](#).

References

Health Technology Assessments

No literature identified.

Systematic Reviews

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

1. Weser, V. U., Duncan, L. R., Sands, B. E., Schartmann, A., Jacobo, S., Francois, B., Hieftje, K. D. Evaluation of a virtual reality E-cigarette prevention game for adolescents. *Addict Behav.* 2021;122:107027. [PubMed](#)

Appendix 1: References of Potential Interest

Systematic Reviews

Alternative Population – Age up to 25 Years Old

2. Selph S, Patnode CD, Bailey SR, et al. Primary Care Interventions for Prevention and Cessation of Tobacco Use in Children and Adolescents: A Systematic Review for the U.S. Preventive Services Task Force. *Agency for Healthcare Research and Quality (US)*. 2020:19-05254-EF-1. [PubMed](#)
3. Selph, S., Patnode, C., Bailey, S. R., Pappas, M., Stoner, R., Chou, R. Primary Care-Relevant Interventions for Tobacco and Nicotine Use Prevention and Cessation in Children and Adolescents: Updated Evidence Report and Systematic Review for the US Preventive Services Task Force. *JAMA*. 2020;323(16):1599-1608. [PubMed](#)

Randomized Controlled Trials

Alternative Outcome

4. Beznos, B., Sayner, R., Carpenter, D. M., Davis, S. A., Lee, C., Loughlin, C. E., Pepper, J. K., Garcia, N., Tudor, G., Sleath, B. Communication About Adolescent and Caregiver Smoking and Vaping During Pediatric Asthma Visits: Implications for Providers. *J Pediatr Health Care*. 2021;35(4):401-407. [PubMed](#)
5. Schrader, S., Merten, M. M., Meyer, A. F. Enhancing Adolescent Risk Perception of Electronic Cigarette Use. *J Dr Nurs Pract*. 2021;14(3):186-192. [PubMed](#)

Non-Randomized Studies

Alternative Comparator – Before and After Study

6. Noar, S. M., Rohde, J. A., Horvitz, C., Lazard, A. J., Cornacchione Ross, J., Sutfin, E. L. Adolescents' receptivity to E-cigarette harms messages delivered using text messaging. *Addict Behav*. 2019;91:201-207. [PubMed](#)

Additional References

7. Egan, L., Gardner, L. A., Newton, N., Champion, K. eHealth Interventions Targeting Poor Diet, Alcohol Use, Tobacco Smoking, and Vaping Among Disadvantaged Youth: Protocol for a Systematic Review. *JMIR Res Protoc*. 2022;11(5):e35408. [PubMed](#)
8. Substance Abuse and Mental Health Services Administration (SAMHSA). Reducing Vaping Among Youth and Young Adults (SAMHSA Publication No. PEP20-06-01-003). Rockville (MD): National Mental Health and Substance Use Policy Laboratory, Substance Abuse and Mental Health Services Administration; 2020: https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP20-06-01-003_508.pdf. Accessed 2022 Jun 02.
See: Sections on smokeSCREEN, pp. 20-21, 47-48