

Supplementary Table S1: Completed PRISMA-ScR Checklist

| Section | Item | Checklist Item | Location in Manuscript | Assessment & Comments |
|--------------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TITLE | 1 | Identify the report as a scoping review. | Title | Yes. The title explicitly includes the phrase "A Scoping Review". |
| ABSTRACT | 2 | Provide a structured summary that includes (as applicable): rationale, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives. | Abstract | Yes. The abstract is presented as a single paragraph (per editor request) but contains all the required elements, summarizing the rationale, methods, key findings (54 studies), and implications. |
| INTRODUCTION | 3 | Rationale: Describe the rationale for the review in the context of existing literature. | Introduction, Paras 1-3 | Yes. The rationale is clearly established by outlining the concurrent rise of vaping and mental health issues, citing previous reviews, and justifying the need for an updated synthesis of the rapidly evolving evidence. |
| | 4 | Objectives: Explicitly state the question(s) and objective(s) that the review addresses. | Introduction, Final Para | Yes. The manuscript explicitly lists four precise research questions that guide the review and structure the results. |
| METHODS | 5 | Protocol and registration: Indicate whether a protocol exists, if and where it can be accessed (e.g., a Web address), and provide registration information if available. | Methods, Para 1 | Yes. The authors transparently state, "A protocol was not registered in advance" and provide a reason, which is acceptable practice. |
| | 6 | Eligibility criteria: Specify the inclusion and exclusion criteria for the review (e.g., defines participants, concepts, and contexts). | Methods, Stage 2 | Yes. Eligibility criteria are clearly defined, covering study type (empirical), focus (link between e-cigarettes and mental health), population (human participants), language (English), and timeframe (2019-2024). |
| | 7 | Information sources: Describe the information sources (e.g., databases, registers) that were searched. Include the date when the search was last conducted. | Methods, Stage 2 | Yes. The manuscript specifies the two databases (Scopus, Web of Science), the publication window (Jan 2019-Dec 2024), and the exact date the search was conducted (Jan 15, 2025). |
| | 8 | Search: Present the full search strategy for at least one database, including any limits used, such that it could be repeated. | Methods, Stage 2 | No. The manuscript describes the <i>keywords and concepts</i> used in the search but does not provide the full, reproducible search string with Boolean operators for a specific database. This is the only item on the checklist not fully met. |
| | 9 | Selection of sources of evidence: Describe the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review. | Methods, Stage 3 | Yes. A detailed two-stage screening process is described, including independent review by two authors, methods for resolving discrepancies, and a reported inter-rater reliability score ($\kappa = 0.85$). |
| | 10 | Data charting process: Describe the method of charting data from the included sources of evidence (e.g., calibrated forms or software) and any processes for obtaining and confirming data from investigators. | Methods, Stage 4 | Yes. The process is clearly outlined, including the use of a data extraction form based on a JBI template, piloting the form, and independent data charting by two authors followed by a comparison meeting. |
| | 11 | Data items: List and define all variables for which data were sought and any assumptions and simplifications made. | Methods, Stage 4 | Yes. The key variables extracted are explicitly listed (e.g., author, year, country, design, population, measures, findings, limitations). |
| | 12 | Critical appraisal of individual sources of evidence: Describe any critical appraisal of individual | Methods, Stage 5 | Yes. The authors correctly state that a formal risk-of-bias assessment was not conducted (as is standard for scoping |

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| | | sources of evidence and how the results were used in the data synthesis (if done). | | reviews) but describe an "informal appraisal of study design... and sample size" used to contextualize the evidence. |
| | 13 | Synthesis of results: Describe the methods of synthesizing results. | Methods, Stage 5 | Yes. The synthesis methods are clearly described as a combination of a "descriptive numerical summary" and a "thematic analysis" aligned with the research questions. |
| RESULTS | 14 | Selection of sources of evidence: Describe the results of the search and selection process, from the number of records identified in the search to the number of sources of evidence included in the review. A flow diagram is highly recommended. | Results (Study Selection) & Figure 1 | Yes. The flow of studies is detailed in the text and visually presented in a clear PRISMA flow diagram (Figure 1). |
| | 15 | Characteristics of sources of evidence: Provide an overview of the characteristics of the sources of evidence included in the review. | Results (Geographical Distribution) & Table 1 | Yes. The geographical distribution is summarized in the text, and extensive characteristics for all 54 studies are provided in Table 1. |
| | 16 | Critical appraisal within sources of evidence: If critical appraisal of individual sources of evidence was conducted, present the findings. | N/A | Not Applicable. As stated in the methods, a formal critical appraisal was not conducted. |
| | 17 | Results of individual sources of evidence: For each source of evidence, present the relevant results that map to the review questions. | Table 1 | Yes. The "Key Findings" column in Table 1 provides a summary of the relevant results from each individual study. |
| | 18 | Synthesis of results: Summarize and synthesize the results in relation to the review questions and objectives. | Results (Prevalence, Bidirectional Assoc., Mechanisms, Moderators sections) | Yes. The Results section is thematically organized with subheadings that directly correspond to the review's four research questions, providing a clear synthesis of the evidence for each. |
| DISCUSSION | 19 | Summary of evidence: Summarize the main results (including an overview of the sources of evidence and their main findings) in relation to the review questions and objectives, and consider their relevance for key stakeholders. | Discussion, Paras 1-2 & Figure 2 | Yes. The discussion opens with a summary of the key findings, presents a conceptual framework (Figure 2) to synthesize the interplay of factors, and discusses implications for policy and practice. |
| | 20 | Limitations: Discuss the limitations of the scoping review process. | Discussion (Limitations of the Review) | Yes. A dedicated subsection provides a thorough and transparent discussion of limitations, including database coverage, lack of formal quality appraisal, geographical skew, and the prevalence of cross-sectional designs. |
| | 21 | Conclusion: Provide a general interpretation of the results with respect to the review questions and objectives, as well as for future research. | Discussion (Addressing Research Gaps) & Conclusion | Yes. The conclusion provides a clear interpretation of the findings, and a dedicated section outlines specific directions and priorities for future research. |
| OTHER | 22 | Funding: Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review. | Declarations (Funding) | Yes. The authors clearly state that "This research received no external funding." |