

What is (un)flavored? A Scoping Review of Cigarillo Flavor Measurement

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Background

Restrictions by the FDA were placed on flavors of tobacco products. Both menthol and non-tobacco characterizing flavors were banned, yet ambiguity remains in flavor definitions.

A scoping review was conducted to assess how cigarillo flavors were measured, most prominent flavored cigar products, and loopholes that can be undertaken to circumvent the potentially instituted flavor ban.

Learning Objectives

Learning objectives of this project were to understand how to carry out a scoping review, analyze evidence from a body of literature to answer a research question, and apply findings from the scoping review to tobacco regulatory science.

Activities

Day to day activities entailed the analysis of several papers outlining tobacco flavoring in cigarillo products. Data was then compiled into tables for clearer analyses and a manuscript was then formulated.

Deliverables

The following deliverables were created for this project:

1. An abstract submitted to SRNT titled: “What is (un)flavored? A scoping Review of Cigarillo Flavor Measurement
2. Contribution to the final manuscript in the discussion section outlining the links between chemical composition and flavor as well as detailing the necessity for concrete flavor definitions.

Methods

Research question: What is flavor as it pertains to cigarillo products?

- Chemical constituents of flavor?
- Definitions of characterizing/noncharacterizing flavors and their change over time

Existing research was identified via 3 methods

1. Research databases (PubMed, Web of Science, etc.) and keywords ‘cigarillo’, tobacco,’ and ‘flavor’ were utilized
2. Eligible literature was forwards and backwards searched for references
3. Bibliographic search of experts in cigarillo research was conducted

Inclusion criteria for articles reviewed were as follows:

- Available in English
- Published before 3/1/2022
- Original, peer-reviewed research
- Some measure of cigarillo flavor measurement

Of 8105 works, 163 met the inclusion criteria, which were then qualitatively evaluated for cigarillo flavor measurement

Results & Discussion

Flavor measurement basis: Frequently based on marketing and packaging

- Names on the package, descriptors (fruit imagery or names alluding to flavors)

Several open ended descriptors were utilized in flavor description

- These did not have a concrete flavor, but were left to interpretation by users with heavy cues in color/imagery

Some research described flavor in reference to chemical constituents, but marketing and packaging were included in sampling strategies.

Several articles listed flavors of the concept or ambiguous variety maintaining similar chemical characteristics as those that were characteristically marketed.

- This proved complicated in categorizing aforementioned flavor groups within the non-tobacco flavor categories.

Key Definitions

Characterizing flavor – Explicit and discernable flavors often measured based on marketing in packaging and descriptions (e.g. orange, vanilla)

Non-/un-flavored – Generally tobacco, regular, non-descript marketing on packaging.

Concept – Ambiguous flavoring as indicated by nomenclature and marketing (e.g. Jazz, Ice). Have recently been comparable to those of the flavored category rather than the unflavored.

Conclusions

- A lack of standardization in cigarillo tobacco flavoring makes it increasingly difficult for legislators to regulate sales.
- There is little consensus the categorization of existing flavors, which creates loopholes for manufacturers to produce and sell products containing flavor, while abiding by restrictions placed on characterizing flavors.

Lessons Learned

This project provided me with an in-depth foray into scientific literature review. I learned the intricacies associated with effectively pinpointing key-words and assessing their meaning in the context of our research question.

Subsequent compilation of data tables provided me with exposure to the development of data cleaning and finalization.

I anticipate using these skills heavily in my future academic career

Public Health Implications

This work implies that there is a lack of standardization on cigarillo flavor categorizations and much work needs to be done creating regulations to encompass production with minimal loopholes.

References and/or acknowledgements

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