

Aims

- To investigate patterns of e-cigarette flavor use in people using e-cigarettes to stop smoking in intervention studies.
- To estimate associations between e-cigarette flavors and smoking/e-cigarette abstinence and study product use at 6 months or longer.

Methods

An update of secondary data analyses from a living systematic review, including meta-analyses and narrative syntheses, incorporating data to February 2024.

Included studies provided adults who smoked combustible cigarettes with nicotine-containing e-cigarettes for smoking cessation and provided data on e-cigarette e-liquid flavor use.

Outcomes included flavor use at any time point, plus smoking abstinence, abstinence from all tobacco or commercial nicotine products (excluding nicotine replacement therapy), and study product use at 6 months or longer, reported as risk ratios with 95% confidence intervals.



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An update of a systematic review and meta-analyses exploring flavors in studies of e-cigarettes for smoking cessation

Nicola Lindson, PhD^a; Jonathan Livingstone-Banks, PhD^a; Ailsa R Butler, DPhil^a; David T. Levy, PhD^b; Phoebe Barnett, PhD^c; Annika Theodoulou, MClInSc^a; Caitlin Notley PhD^d; Nancy A Rigotti, MD^e; Yixian Chen, PhD^f; Jamie Hartmann-Boyce, DPhil^{a,g}

^a Nuffield Department of Primary Care Health Sciences, University of Oxford, Oxford, UK. Email: ailsa.butler@pche.ox.ac.uk; nicola.lindson@pche.ox.ac.uk; annika.theodoulou@pche.ox.ac.uk; jonathan.livingstone-banks@pche.ox.ac.uk

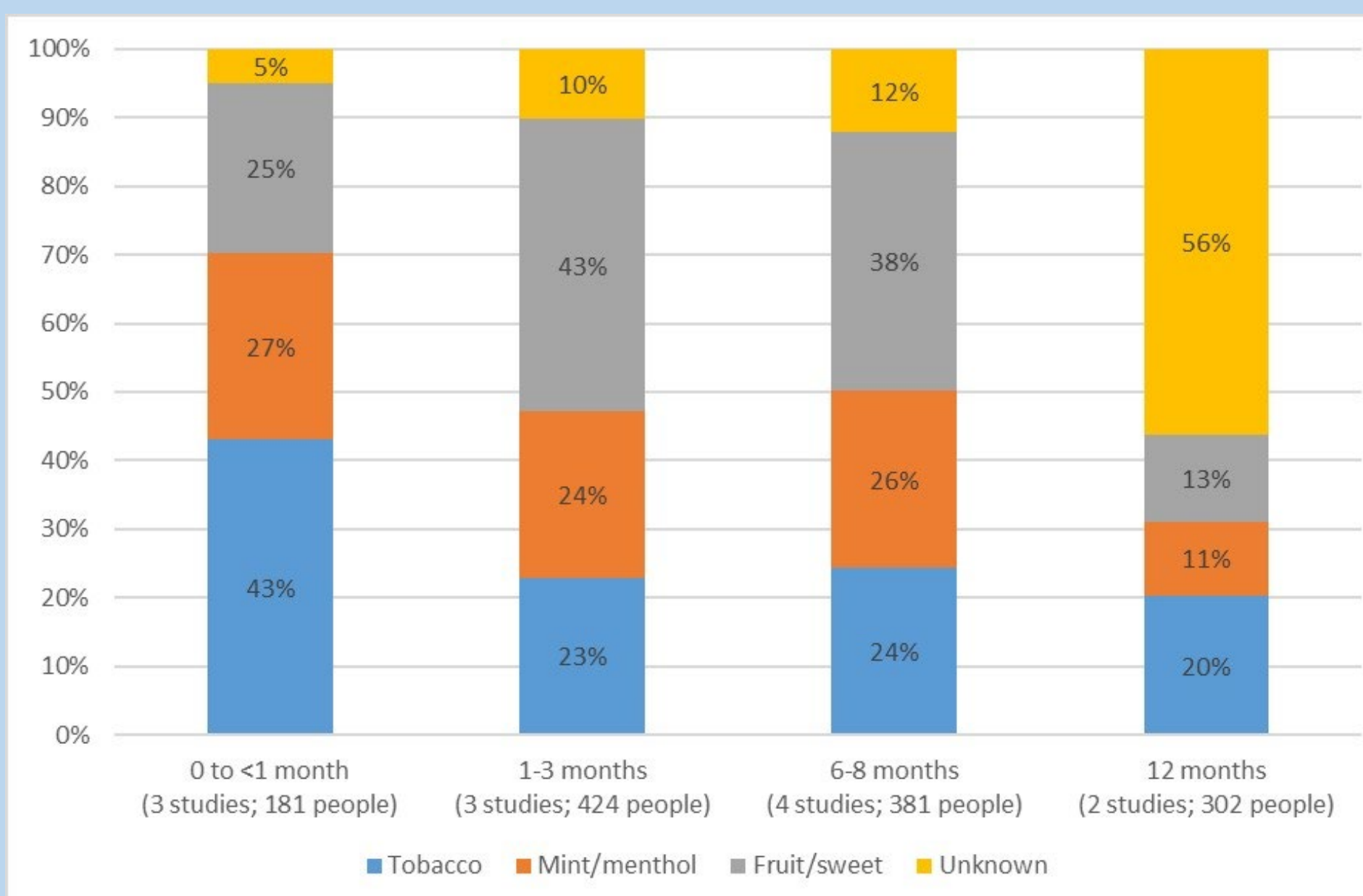
^b Georgetown University-Lombardi Comprehensive Cancer Center, Cancer Prevention and Control Program, Washington, DC, USA. Email: d1777@georgetown.edu

^c Centre for Outcomes Research and Effectiveness, Research department of Clinical, Educational and Health psychology, University College London. Email: phoebe.barnett@ucl.ac.uk

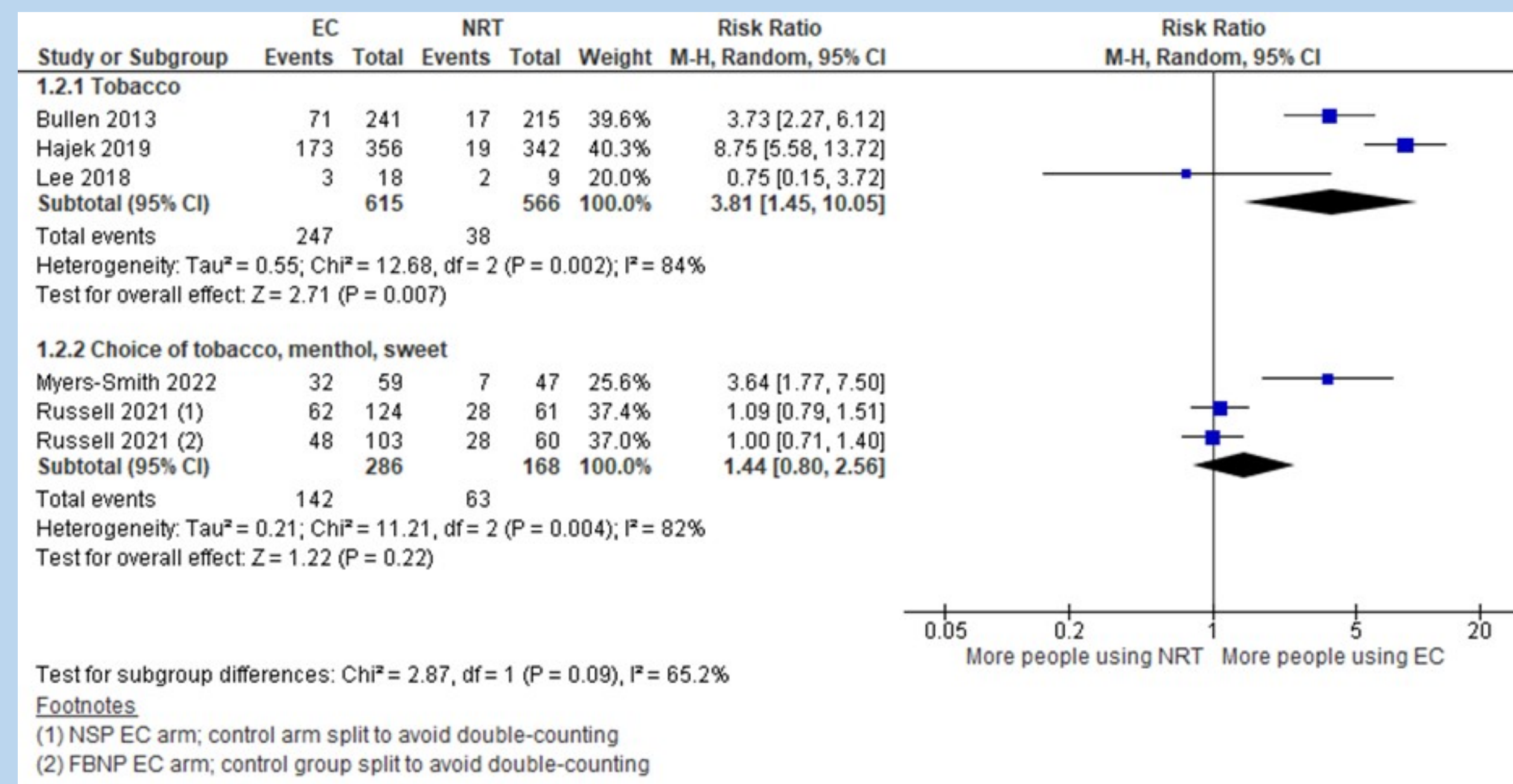
^d Addiction Research Group, Norwich Medical School, University of East Anglia. c.notley@uea.ac.uk
^e Tobacco Research and Treatment Center, Department of Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, USA. Email: n.rigotti@partners.org
^f Department of Integrative Oncology, British Columbia Cancer Research Institute, Vancouver, British Columbia, Canada. Email: yixian.chen@bccrc.ca
^g Department of Health Promotion and Policy, University of Massachusetts Amherst, Amherst, MA, USA. Email: jhartmannboy@umass.edu

Results

- We included 25 studies (n=16,748); 21 of these contributed to meta-analyses and 18 provided participants with a choice of e-cigarette flavor.
- We judged 15 studies at high, 7 at low, and 3 at unclear risk of bias.
- There was an indication that sweet (including fruit) flavors were preferred over tobacco and menthol; however, there were differences across studies.



- In studies where participants had a choice of flavors, and this was tracked over time, some switching between flavors occurred.
- Subgroup analyses showed no clear associations between e-liquid flavors provided and smoking cessation or study product use. One included study randomised participants to two different flavor conditions and found similar rates of cessation and long-term e-cigarette use between arms at 12 month follow-up.



Conclusion

There is evidence that some people using e-cigarettes to quit smoking switch between e-cigarette flavors during a quit attempt. Sweet flavors may be preferred overall, but this may differ depending on context. There is no clear association between the use of e-cigarette flavors and smoking cessation or longer-term e-cigarette use, possibly due to a paucity of data.

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Declarations of competing interest

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- JHB has received research consultancy funding from the Food and Drug Administration and the Truth Initiative.
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