

Call of Abstracts - "International conference on the E-Cigarette: patterns of use and health impacts"



Call of abstracts

"International conference on the E-Cigarette: patterns of use and health impacts" - Paris, on 5-6th December 2022

Submission form

Poster & oral presentation

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Background information

Type of submission

Poster

Theme of conference

Patterns of use

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Patterns of user

Smoking cessation

Trajectories of users

Abstract title

Is the EU-18mg/ml JUUL as Satisfying as the US-59mg/ml JUUL? A Mixed Method Study to Explore the Effects of JUUL and Trajectories of Use

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Abstract details (poster & oral)

Background, method, results and conclusions

Background: The surge in popularity of JUUL in the US has not materialised in the UK. A key difference is the nicotine strength in the US, typically 59mg/mL, is capped at 20mg/mL in the UK and EU. This may limit the ability of JUUL to deliver satisfaction and promote smoking cessation. The aims of this

study were to i) compare the EU-JUUL (18mg/mL nicotine strength) vs. the US-JUUL (59mg/mL) on daily smokers' subjective experiences and blood nicotine levels, ii) explore trajectories of use in a 2-week follow-up qualitative interview.

Method: Mixed Method, Double-blind, counter-balanced within-participant design with 2 conditions: 18 vs. 59mg/mL and semi-structured interviews. N=19 UK smokers provided blood samples at baseline 5, 15, 30 and 60 mins and subjective effects measures whilst vaping ad lib for 60 mins on 2 separate occasions. Semi-structured interviews were conducted 2 weeks later.

Results: Satisfaction did not differ between conditions ($p > .05$). For Nicotine Hit, there was a significant interaction between Time and Nicotine concentration ($p = .045$), means increased from 10 to 60 mins for the 59mg/mL and decreased under the 18mg/mL. Participants reported higher Throat Hit under the 59mg/mL ($p = .017$). Liquid consumption was doubled under the 18 vs. the 59mg/mL ($p = .001$) and nicotine boost was significantly higher in the 59mg/mL at all time-points ($p \leq .001$). A significant reduction in smoking and cigarette dependence was reported at the 2-week follow-up ($p < .001$).

Qualitative data demonstrated that users were aware of increased vaping behaviour when using the 18mg/mL JUUL. Both conditions were perceived positively.

Conclusion: Plasma nicotine levels were greater under the 59mg/mL despite participants vaping double the quantity of liquid in the 18mg/mL nicotine strength. The differences in liquid consumption suggest an attempt to compensate for lower nicotine levels which may have been successful at least subjectively, given scores in satisfaction did not differ.

Main messages

Main message: These findings could suggest that such high nicotine strengths are not necessary for providing satisfaction. However, this is at the expense of a considerable increase in liquid consumption indicative of compensatory puffing.

Type of study / research

Human study

Geography of the study

Europe

Funding of study

Federal source

No

State source

No

Nonprofit Grant Funding Entity Source

Yes

Nonprofit Grant Funding Entity Source

Yes

Academic Institution Source

Yes

Pharmaceutical Industry Source

No

Tobacco/E-Cigarette Industry Source

No

Declaration of interest

The submitter declares that during the past 5 years have a direct nor indirect link (professional*, personal or financial) with the tobacco and e-cigarette companies**

No