

E-cigarettes for smoking cessation within healthcare settings: patients' perceptions and research feasibility

Richard Holliday

BDS (Hons) MFDS MPerio RCSEd MFDS an eundem RCSEng MCLinRes

NIHR Doctoral Research Fellow/ Speciality Registrar in Restorative Dentistry

Co-investigators: Professor Linda Bauld, Professor Philip Preshaw, Professor Falko Sniehotta, Professor Elaine McColl, Suzanne McDonald, Vicky Ryan.

Conflict of interest

- None
- Funding: Richard Holliday is funded by a **National Institute for Health Research** Doctoral Research Fellowship (DRF-2015-08-077).

Background- tobacco and oral health

- Oral cancer
- Periodontitis/ Peri-implantitis

‘Severe periodontitis: Sixth most prevalent health condition in the world’

(Kassebaum et al, 2014)



Methods- ongoing study

- Title: A mixed methods feasibility study of electronic cigarette use by patients with periodontitis.
- 80 participants: tobacco smokers + severe chronic periodontitis.
- Randomised to usual care or usual care + e-cig
- ISRCTN: 17731903



AIM:

- To explore the perceptions of individuals attending a (dental) healthcare setting towards e-cigarettes, and the acceptability and feasibility of providing e-cigarettes within this setting.

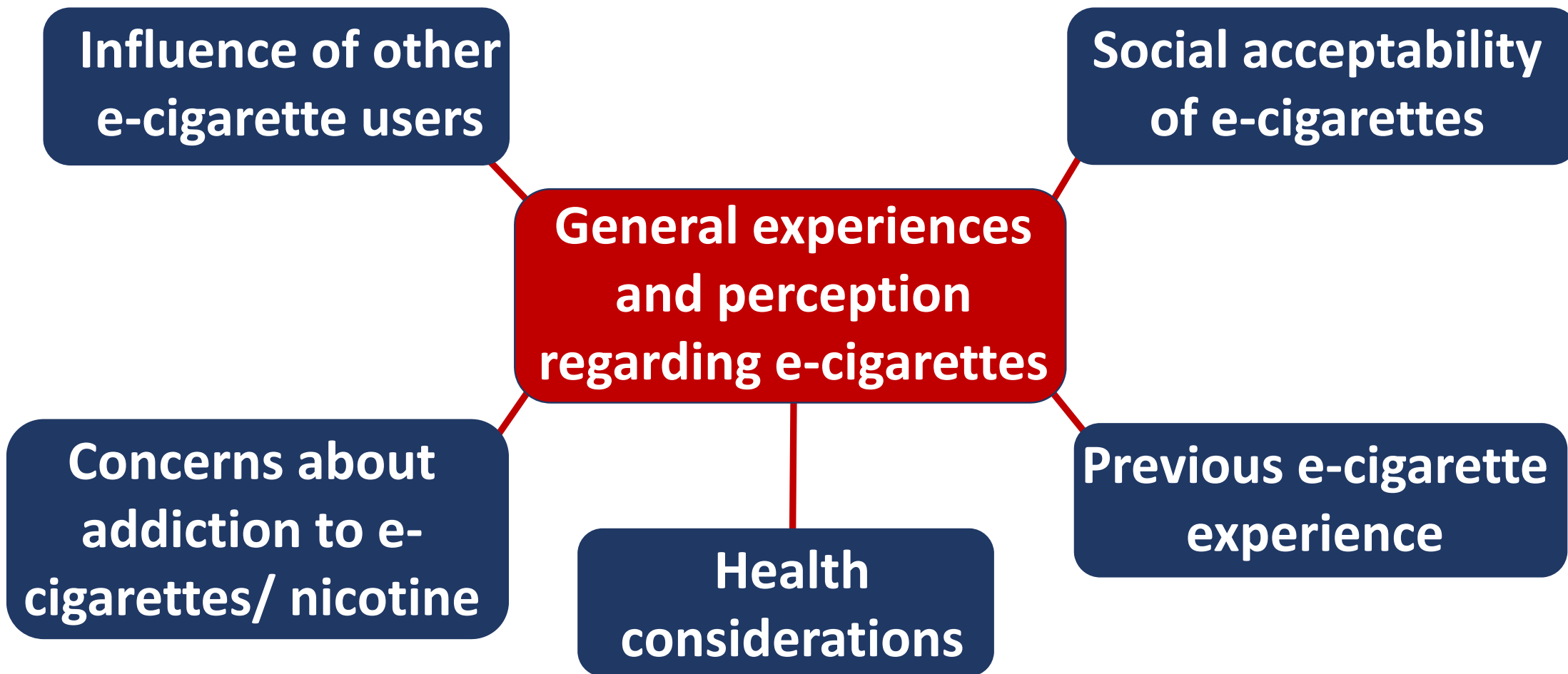
DESIGN:

- Theory-based, one-to-one, semi-structured interviews (Theoretical Domain Framework, TDF [Michie et al., 2005]).
- Purposive sample of 28 participants.
- 14 received e-cigarette starter kit: 2nd generation device, spare tank, spare battery, 2x10ml bottles of e-liquids, written info and tutorial.

Results- demographics

Variable	Mean or N
Gender, male (n [%])	12 [43]
Age (Mean [SD, range])	44 [11, 25-60]
Ethnicity (n [%]) White (British, Irish, other White)	28 [100]
Age started smoking (Mean [SD, range])	16 [3, 12-29]
No. cigarettes per day (Mean [SD, range])	19 [8, 10-40]
FTND (Mean [SD, range])	5 [2, 1-9]
eCO (ppm) (Mean [SD, range])	21 [11, 1-49]
Employment status (n [%])	
Working in a routine or manual occupation	6 [21]
Working in an intermediate occupation	9 [32]
Working in a managerial or professional occupation	9 [32]
Unemployed/ not working for a year or more	2 [4]
Sick/ Disabled/ Unable to return to work	1 [4]
Home carer (unpaid)	1 [4]

Results- theme overview



Results- 'Influence of other e-cigarette users'

- Positive influence

...a lot of people I know, they seem, quite positive about it [vaping], and I haven't had any sort of negative, feedback or anything from it. (Male, 45 years, 15 cigs/day)

A lot of the girls at work, have been really successful on the e-cigarettes... about six or seven of the girls ... have stopped smoking with the e-cigarettes. (Female, 52 years, 15 cigs/day)

Results- 'Influence of other e-cigarette users'

- Others aware of positive views but sceptical themselves

...a lot of people say, "Well it's a lot better than smoking"...the amount of people using them now it's ridiculous... so a lot of people must have a positive views of them as well you know. (Male, 27 years, 15 cigs/day)

Results- 'Previous e-cigarette experience'

- Previous experience was predominantly negative

'leak all over the place in me [my] pocket'

'tasted really funny... could actually taste like electricity in your mouth'

Results- 'Concerns about addiction to e-cigarette/ nicotine'

- Worries about becoming over-reliant on e-cigarette

'just replacing one addiction for another'

- Lack of control

... when I'm smoking [tobacco] cigarettes I know exactly what I'm getting. If I move to a vaper [e-cigarette], I don't really know how much, how much of a hit I'm getting... [If I used tobacco cigarettes] I think it would be easier for me to do it [cut down], to measure what I'm having you know. (Male, 44 years, 30 cigs/day)

Results- 'Health considerations'

- Some believed e-cigarettes to be less harmful than tobacco cigarettes

*I feel better for it [switching to e-cigarettes]. I really do. I don't feel like I smell... me [my] mouth's a lot healthier, I'm not wheezing, I'm not coughing, on a morning, it's, I just feel in myself, a lot healthier for packing in real cigarettes and going on to the e-cigarette. It's a massive difference.
(Female, 52 years, 15 cigs/day)*

Results- 'Health considerations'

- Others had negative views of the health harms from e-cigarettes

I did go on the e-cigarettes for a while...But then me Mam [mum], [fell] seriously ill, and I've actually been looking up this week about it and I think...from what they described, apart from the tumour she had Popcorn lung...Which is part of the e-cigarette...or so they think. (Female, 47 years, 15 cigs/day)

Results- 'Social acceptability'

- Mixed views

...I don't feel out of place when I'm using it, I don't feel uncomfortable using it, walking through town or wherever. (Male, 27 years, 15 cigs/day)

I think if you see someone with a, e-cig, you just know that they used to be a smoker, it just doesn't look attractive... I think they're awful. (Female, 35 years, 10 cigs/day)

Results- theme overview



Results- 'Benefit of behavioural similarities'

- E-cigarettes more than nicotine provision

It has helped, because, I don't know whether you can appreciate this. It's like having a pen in your hand. You need something to do with your hands. (Male, 58 years, 15 cigs/day)

And you can see the smoke blowing out, you get the throat hit, and it's, it's exactly, a replacement and it's, aye, I've really, found it [quitting tobacco cigarettes] quite, easy, in a way. (Female, 52 years, 15 cigs/day)

Results- 'Influence of flavour'



Unflavoured

- Less than half chose tobacco
- 18mg/ml was the modal nicotine concentration

Results- 'Influence of flavour'

- Dichotomous views on flavour:
 1. Strong preferences against tobacco flavours- too similar to smoking
 2. Strong preferences towards of tobacco flavours- it should be similar to their smoking experience



Results- 'Technical issues'

- Small number of incidents
- Sometimes assistance from family or friends

Strengths and Limitations

STRENGTHS:

- Theory-based interviews, representative sample
- First qualitative research (on e-cigs) in dental healthcare setting

LIMITATIONS:

- Interviews conducted in clinical setting by research dentist
- Interpretation bias of qualitative research

Conclusions

- Smokers positively perceived the provision of an e-cigarette for smoking cessation within the dental healthcare setting.
- There were a wide range of positive and negative perceived influences. Future approaches and interventions should consider these.

Acknowledgments

- Research participants!
- Research team!
- This presentation presents independent research funded by the National Institute for Health Research (NIHR). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health.

Questions



- Title: A mixed methods feasibility study of electronic cigarette use by patients with periodontitis.
- ISRCTN: 17731903