A smoking cessation smartphone app that delivers real-time 'context aware' behavioural support: the Quit Sense feasibility RCT

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This report contains transcripts of interviews conducted in the course of the research, or similar, and contains language which may offend some readers.

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Plain language summary

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Plain language summary

Smokers often fail to quit because of urges to smoke triggered by their surroundings (e.g. being around smokers). We developed a smartphone app ('Quit Sense') which learns about an individual's surroundings and locations where they smoke. During a quit attempt, Quit Sense uses in-built sensors to identify when smokers are in those locations and sends 'in the moment' advice to help prevent them from smoking.

We ran a feasibility study to help plan for a future large study to see if Quit Sense helps smokers to quit. This feasibility study was designed to tell us how many participants complete study measures; recruitment costs; how many participants install and use Quit Sense; and estimate whether Quit Sense may help smokers to stop and how it might do this.

We recruited 209 smokers using online adverts on Google search, Facebook and Instagram, costing £19 per participant. Participants then had an equal chance of receiving a web link to the National Health Service SmokeFree website ('usual care group') or receive that same web link plus a link to the Quit Sense app ('Quit Sense group'). Three-quarters of the Quit Sense group installed the app on their phone and half of these used the app for more than 1 week. We followed up 77% of participants at 6 months to collect study data, though only 39% of quitters returned a saliva sample for abstinence verification. At 6 months, more people in the Quit Sense group had stopped smoking (12%) than the usual care group (3%). It was not clear how the app helped smokers to quit based on study measures, though interviews found that the process of training the app helped people quit through learning about what triggered their smoking behaviour.

The findings support undertaking a large study to tell us whether Quit Sense really does help smokers to quit.

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