The development of a context aware smoking cessation app

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Introduction
- Cues to smoke from the environment are implicated in almost half of all smoking lapses.
- To date, no interventions proactively help smokers when they face cue-induced craving episodes. The most commonly used cessation medications don’t help in these situations.
- Smartphone apps, using standard sensors, could deliver real-time context-tailored behavioural support.
- Aim: To describe the development of Q Sense, a sensing cessation app.

Theory
- Social cognitive theory
- Perspectives on change model
- Relapse prevention model
- Elaboration likelihood model

Tailored SMS text systems
- SMS programme for pregnant smokers
- SMS programme to support routine one-to-one cessation advice and Pharmacotherapy

INFORMING CONTENT

Users log every time they smoke till their quit date. Each time they answer 5 questions about their current situation. A location sensor snapshot is taken for each report.

SET QUIT DATE

If smoking is reported >4 times in one location, a geofence around that area is created.

References

Discussion/Conclusion
- Multiples technical, data and clinical challenges encountered
- Challenges included setting up an engaging user-initiated learning system for training the app, extracting, converting and analysing app data, creating support messages tailored to real-time behaviour and adding features that maximise usability & engagement in line with participants’ expectations.
- The development work and piloting highlighted the considerable potential of tailoring support to real-time location

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