



# Smoke-free Dads: A game changer for better health

Angela Leung, Noman Mohammad, Joan L. Bottorff, Mohammad Khalad Hasan, Laura Struik

## INTRODUCTION

### Background:

- There is a need for father-specific smoking cessation resources
- Majority of resources targeted towards mothers
- Children play a strong role in motivating fathers to quit smoking
- Key factors include potential effects on the child's health and their ability to care for the child
- The use of gaming strategies has been shown to be effective in promoting positive health behaviour changes
- An effective approach may include designing smartphone apps for supporting smoking cessation



### Objectives:

- Expand the reach of the Dads In Gear (DIG) program – a group-based smoking cessation program tailored for fathers



- Design a smartphone app with information, tools and gamification strategies to support smoking cessation

## METHODS

1. Review of literature

2. Development of app prototypes

3. Gather father feedback on prototypes

## REVIEW OF LITERATURE

### Focused review of literature included:

- Evaluations of health apps developed for men
- Studies re: fathers and smoking cessation
- Use of gamification to support behaviour change

Identified user needs

Translate needs into features

Resources from the DIG booklets

### Behaviour Change Techniques:

Highlighted examples of Behaviour Change Techniques (BCT) used in gamification:



Home Screen

Self-monitoring

Goal Setting

Feedback

Credible Source

Social Support

Prompts / cues

These BCTs are used and integrated into the DIG smartphone app.

**Goal Setting** → Selecting personal “Reasons to Quit” at registration

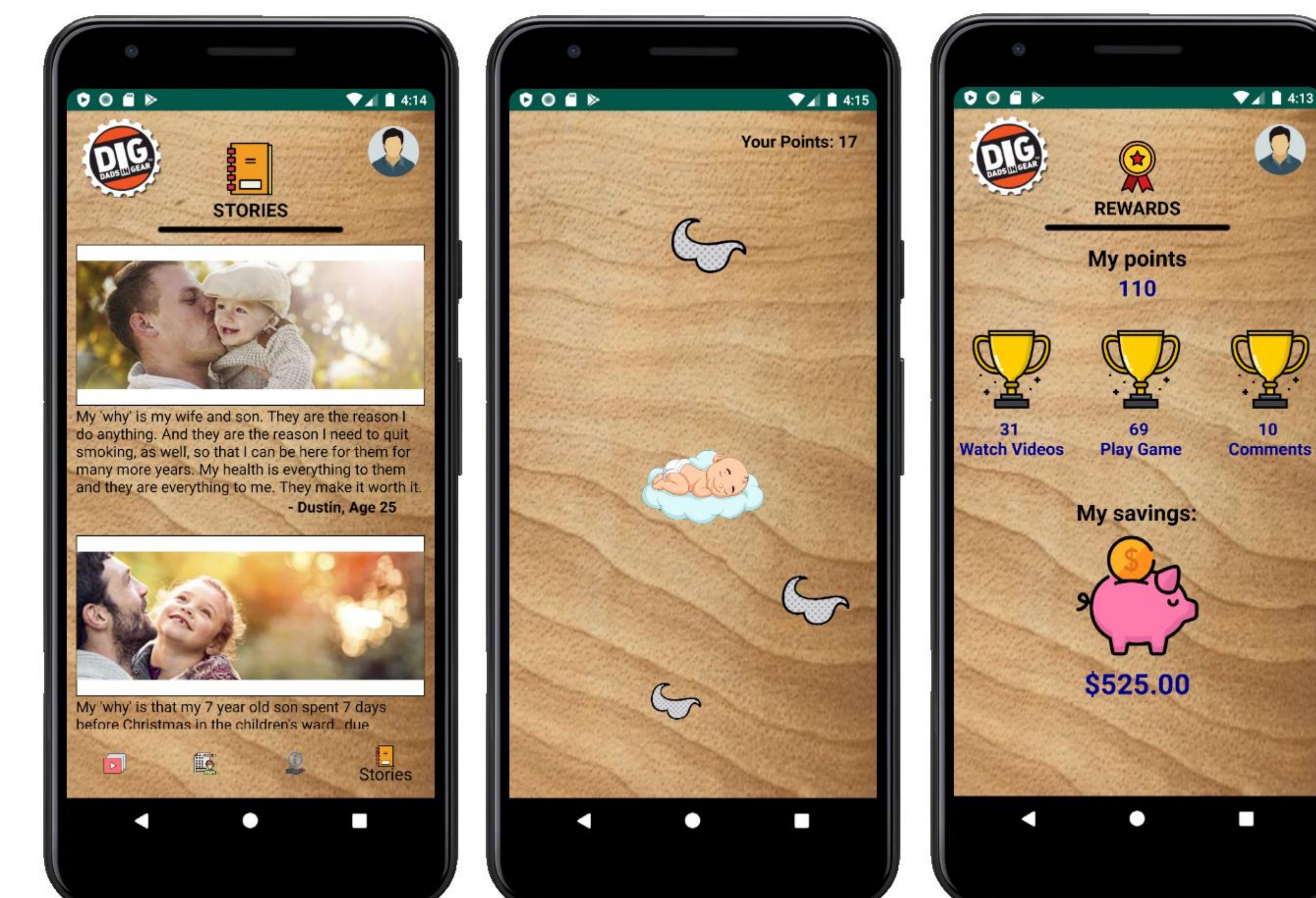
**Social Support** → Opportunity to connect with other fathers in forums

**Feedback** → Tracking number of cigarettes smoked

## DEVELOPMENT OF APP PROTOTYPES

Evidence-based, father-friendly, high-fidelity app prototypes to support smoking cessation, fathering, and healthy lifestyles were designed, including:

- Distraction game
- Rewards page
- Quizzes
- Smoking cost calculator
- Community board
- Quit stories from other dads



Quit stories

Distraction game

Rewards and savings

## PRELIMINARY FINDINGS & NEXT STEPS

- Participants have expressed financial incentives and family health are important parts of the app for motivation
- The game components were positively reviewed with suggestions for improvement
- Personalisation of app were viewed favourably to provide tailored support and notifications

### Next Steps:

•Continue recruitment of fathers to gather feedback on DIG app prototypes

•Conduct a content analysis of data gathered from end users to inform revisions to the DIG app

•Create recommendations for a pilot mobile application

## CONCLUSION

The DIG smartphone app has the potential to reach a wide range of fathers who smoke and provide a valuable addition to existing smoking cessation resources.