Lessons learned from developing the Growing healthy program

An m-health intervention to promote best practice in feeding across the first nine months of life in socioeconomically disadvantaged mothers

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Apps for health behaviour change

- Increasingly common
- Widely used across demographic groups
- Low cost, scalable
- Programming flexibility
- Good for mums and dads who are time poor
The aims of the **Growing healthy** program

Assess the **feasibility** of PHC practitioners referring socioeconomically disadvantaged parents to the m-health intervention as part of routine baby health checks.

Test the **effectiveness** of the m-health intervention including impact on key infant nutrition and feeding outcomes.

Part of a stream of research focusing on obesity prevention in early life.
Growing healthy comes as an app with push notifications.

The app is designed for use on Android and iPhone.
How to handle fussy eaters

Some common behaviours of fussy eating include your baby rejecting food and spitting it out, as well as moving their head away from the spoon. However, these signals could also mean your baby feeling is full/unwell/teething, or perhaps not ready for solids. It’s important to get to know your baby’s signs. If your baby is growing well then there is no need to worry. If you have any concerns about your baby’s eating then talk to your GP or maternal and child health nurse.

Getting it right from 9 months

Healthy eating
How did we develop the program?

**Stage 1**  
Understand the problem  
- Systematic reviews  
- PHC practitioner interviews & survey  
- Parent interviews

**Stage 2**  
Define strategies for change  
- Define program target behaviours  
- Select behaviour change techniques

**Stage 3**  
Develop content in line with behaviour change techniques  
- Develop content in line with behaviour change techniques  
- Develop app look, feel & functionality

**Stage 4**  
Refine content in line with user preferences  
- Feedback - nurses & parents  
- Refine content  
- Refine app look, feel & functionality

**Stage 5**  
Implement & gather feedback  
- Implement study  
- Collect data  
- Gather feedback from surveys, analytics, interviews

18 months
Developing the Content
Developing the content

• Addressing an identified need (for nurse and parent).
• Used best available evidence to select target behaviours & change strategies.
• Pictures and videos included for practical demonstration.
• Consistent with Australian Infant Feeding Guidelines.
• Content reviewed by experts.

Michie et al 2011
Developing the content – what did we learn?

- **Extensive** process requiring a lot of expertise.

- Develop your own content or source elsewhere? Legal considerations.

- What will work?
  - Can be difficult to link behaviour change techniques with app content/functionality.
  - And link this with user preferences.
Developing an App
Developing an app

- Aligned the content and behaviour change strategies with app functionality.
- Worked with app developer.
- App functionality across different types of phones/tablets.
- App engaging to participants, in line with their preferences.
What have we learned so far?

- Developing an app requires a dedicated developer.
- Considerations include taking up space on phones, heavy downloads, functionality on Android/iPhone.
- Need to be mindful of software upgrades, users changing their phones etc.
- Build in analytics.
- Make sure the app engages participants (user-centred design).
Recruiting Participants
Recruitment

- The program is currently being pilot tested in disadvantaged communities in:
  - Maternal and Child Health Centres via Maternal and Child Health Nurses (Victoria)
  - At a hospital + Maternal and Child Health home visit (Victoria)
  - In General Practice (NSW)
Joining the Growing healthy program

1. Parent visits nurse (routine check)
2. Nurse refers parent to program
3. Parent signs up for program
4. Parent receives activation code
5. Parent receives 3 tailored push notifications per week
6. Access app content
7. Can join Facebook group
8. Parent completes surveys at 3, 6 and 9 months
   - Paid $20/survey

6-9 months
Participants

• ~280 participants recruited (50 have completed T2 survey)

• 28% through PHC
Recruitment – what did we learn?

• On average, parents make 11 visits to general practitioners and 14 visits to Maternal and Child Health nurses in the first year of their child’s life – yet is remains difficult to capture them and enrol them in the study!

• Extended recruitment online via blogs, Facebook pages etc.
Key messages

• Apps have huge potential to promote health.

• The time and expertise required to *develop* an evidence-based app is extensive.

• A multidisciplinary team is needed – including expertise in behaviour change, app development and user-centred design.

• Results coming!
More Information

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