Growing healthy

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Project Team

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• **University of Adelaide**
  • Prof John Lynch

• **University of Queensland**
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Aims of the Growing healthy program

- Feasibility study funded through Centre for Obesity Prevention and Management Research Excellence in PHC (COMPaRE-PHC)
- Part of a stream of research focusing on obesity prevention in early life

- Aims to:
  - Develop and pilot test a mobile phone app and website in supporting healthy infant feeding practices in first 9 months of life amongst socio-economically disadvantaged parents
Program Aims

- Promote breastfeeding
- If breastfeeding is not possible, promote best practice formula feeding
- Delay the introduction of solids to around 6 months of age but not before 4 months
- Promote healthy first foods
- Promote healthy infant feeding practices (including feeding to appetite, repeated neutral exposure to healthy food and avoiding using food as a reward)
- Optimise infant dietary exposure to fruits and vegetables
Hybrid app will work on:
- Iphone 4, 4s, 5, 5s, 5c, 6,
- Samsung galaxy S3, S4, S5
- Nexus 5
- HTC one
Growing healthy is a new app, website and online forum full of practical advice and tips to help you feed your baby - whether this is breast or formula feeding, mixed feeding or introducing solids.
Development Process

Stage 1: Needs assessment
Audit of existing apps/website on infant feeding

Stage 2: Formative work
- Literature reviews
- Parent interviews
- Practitioner survey and interviews

Stage 3: Initial user testing
- App look and feel
- Content
- Key messages

Stage 4: Feasibility study
- Usefulness
- Acceptability
- Engagement
- Impact
Make more milk

Your milk supply responds to how much milk your baby is removing from the breast. This means your baby removing the milk from your breasts tells your body how much milk to make. Remember:

Milk supply = demand

If you want to make more milk, there are lots of steps you can take. The first and most important step is to make sure your baby is latching on and sucking well so that your breasts are being drained of their milk. If you’re not sure about your baby’s latch, you can call the ABA helpline or a lactation consultant for help. A lactation consultant can organise to see you and check whether your baby is removing the milk. If your baby is removing milk well, here are other steps you can take to make more milk:
Professional support

Many health professionals play a part in the life of a new mum who is breastfeeding, especially your GP, maternal and child health nurses and possibly lactation consultants.

You can also call the Lactation Helpline on 1800 686 268 for professional advice. It's free and confidential.

A second opinion can be useful if you're unsure of the advice you’re being given – your maternal and child health nurse, a lactation consultant or the ABA helpline all provide specialist help in this area.
Your partner's attitude matters!

Did you know that what your partner thinks about breastfeeding actually has a big impact on how long you will keep breastfeeding. This light-hearted blog article (opens in your browser) talks about how dads can help with breastfeeding, but you can also equally apply the advice to any current partner you have.
How to turn an adult meal into a baby meal – Beef and veggie skewers

How to turn an adult meal into a baby meal – Beef casserole
Program Messages

• 3 messages per week sent via the app or text message between birth and 9 months

1 milk feeding message per week, tailored to feeding method:
- Breastfeeding
- Formula feeding
- Mixed feeding

1 general feeding message per week:
- Feed and sleep patterns
- Crying and settling
- Solids

1 mums message per week:
- Looking after yourself
- Healthy eating
- Getting active
- Sleep
Growing healthy

Is Flynn fussy? The more you fuss, the more your baby will fuss! See here if you’re having trouble feeding Flynn a particular food.

Do you want to view it now?

Not now  Ok
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.

How to handle fussy eaters
Feasibility Study – Overview

Quasi experimental design:
• Growing healthy intervention group (n=319)
• Non-randomised comparison group (n=380)

Eligibility:
• Primary carer of Infant less 3 months of age or expectant parent (30+ gestation)
• 18+ years, lives in Australia, own mobile phone, read and understands English

Recruitment to Growing healthy:
• Practitioner led
• Online recruitment
• Face to face by researchers
Recruitment – Source and Cost

![Bar chart showing recruitment source and cost]

- **Online**: 160 (Number), 13 (Cost per person)
- **Practitioner**: 97 (Number), 151 (Cost per person)
- **Face to Face**: 27 (Number), 86 (Cost per person)
- **Word of mouth**: 37 (Number), 0 (Cost per person)
Data collection

Baseline (≤3 months baby age)

T2 Survey (6 months baby age)

T3 Survey (9 months baby age)

Data analytics:
- Push notifications sent/opened
- Frequency of access
- Pages viewed

Post intervention qualitative interviews:
- Exploring the participants experience using the Growing healthy app
Android, iPhone or SMS by Maternal Education

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Android</th>
<th>iPhone</th>
<th>SMS</th>
</tr>
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<tbody>
<tr>
<td>Total</td>
<td>33</td>
<td>57</td>
<td>10</td>
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<tr>
<td>No University education</td>
<td>39</td>
<td>52</td>
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<tr>
<td>University education</td>
<td>26</td>
<td>63</td>
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</table>
### The Engagement Index

<table>
<thead>
<tr>
<th>Metric</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click depth index (CI)</td>
<td>The amount of pages accessed by a participant per session</td>
</tr>
<tr>
<td>Recency Index (RI)</td>
<td>The likelihood that the visitor has been to the site multiple times in the recent past</td>
</tr>
<tr>
<td>Loyalty Index (Li)</td>
<td>Participants who have used the app repeatedly over time</td>
</tr>
<tr>
<td>Interaction Index (Ii)</td>
<td>The number of push notifications the participant viewed</td>
</tr>
<tr>
<td>Feedback Index (Fi)</td>
<td>Quantitative survey measuring participants satisfaction with the app</td>
</tr>
</tbody>
</table>
Most commonly viewed topics on the Growing healthy app

<table>
<thead>
<tr>
<th>Category</th>
<th>Topic</th>
<th>Number of Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids</td>
<td>When to introduce solids</td>
<td>295</td>
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<tr>
<td></td>
<td>First foods</td>
<td>293</td>
</tr>
<tr>
<td>Sleep/feed patterns</td>
<td>Birth to 3 months &gt; Feed, play and sleep patterns</td>
<td>218</td>
</tr>
<tr>
<td></td>
<td>Birth to 3 months &gt; Sleep patterns</td>
<td>193</td>
</tr>
<tr>
<td>Formula Feeding</td>
<td>Formula feeding calculator</td>
<td>174</td>
</tr>
<tr>
<td></td>
<td>Out and about &gt; When away from home</td>
<td>54</td>
</tr>
<tr>
<td>Recipes</td>
<td>Food texture</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>Please read first</td>
<td>115</td>
</tr>
</tbody>
</table>

Number of visits range from 0 to 350.
Least viewed topics on the Growing healthy app

- Food for mums > Healthy eating: 90 visits
- Childbirth recovery > Physical recovery: 90 visits
- Breastfeeding: 65 visits
- Breastfeeding in public: 58 visits
- What is mixed feeding?: 61 visits
- Is it recommended?: 54 visits
- Sleep > Advice and services - VIC: 14 visits
- Feeding > Breastfeeding: 14 visits
Qualitative interviews – Post intervention

**Aim:** To explore the features of the Growing healthy app that affected participants’ engagement over the course of the 9 month program.

**Results**

- *Factors that positively influenced engagement*
  - First time mothers
  - Push notifications and the Facebook group
  - The app was seen as a trustworthy source
  - Sharing information from the app with others
Qualitative interviews

- *Factors that negatively influenced engagement*
- Technological issues
- Push notifications disappeared before tapping on it
- Too many taps required to reach the information in some sections
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.

• Outcome results coming!
Growing healthy in Inala
Further Information

Sign up for newsletter updates on progress of the project:

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www.growinghealthy.org.au