Breastfeeding behaviour

- Breastfeeding levels in Australia are well below WHO recommended duration of 2 years and NHMRC breastfeeding target – 80% of babies breastfed at 6 months (WHO 2001; NHMRC 2003)
- Only 48% of babies in Australia receiving any breastmilk at 6 months (ABS 2006; WHO 2001)
- Prompted Federal Government focus with the release of the Australian Breastfeeding Strategy 2010-2015
- Social marketing is interested in breastfeeding as education only campaigns have failed to increase breastfeeding behaviours (Kramer et al. 2001; McInnes et al. 2000; Su et al. 2007)
- Women know it is good for their baby to be breastfed but other barriers prevent them from breastfeeding (ABA 2008; Dennis 1999)
Typical approaches to the problem

- Organisations, governments and health professionals typically use awareness/knowledge campaigns to increase breastfeeding rates
- Promote breastfeeding as a simple “doable” behaviour
- Present a ‘rosy image’ that denies the challenges

Typical approaches to the problem

- Why hasn’t this achieved the target rates?
  - Usual approaches:
    - Adopt an education based approach to the problem. MOA Model (Rothschild 1999) indicates that education is only appropriate where knowledge or awareness levels are low
    - Baby-oriented, position breastfeeding as easy and often induces guilt – inconsistent with women’s experiences (Horswill 2009)
    - Programs developed by health professionals
  - Consumer responses range from irritation to outrage

"Fed up with breastfeed Nazis"
Women who have just given birth do not need the extra stress placed on them by this taxpayer-funded campaign. I will not be made to feel guilty by the Government for something I decided as a parent was best for my child.
Overcoming Barriers

- Physical and emotional barriers influence women’s commitment to breastfeed (Dennis & Faux, 1999; Rempel, 2004)
- Prior breastfeeding research indicates that using an education approach has limited success (McInnes 2000)
- Perceived behavioural control/self-efficacy has been shown to influence breastfeeding duration (Dennis & Faux, 1999)

Loyalty

- Loyalty is a new approach applied to understand the complexity of social behaviours consisting of two components:
  - Attitudinal loyalty- captures the cognitive and affective aspects such as commitment and intention (Mellens, Dekimpe & Steenkampe 1996; Rundle-Data & Bennett, 2001)
  - Behavioural loyalty- repeat purchase of a brand in preference to other available brands (East et al, 2005)
- The underlying objective of social marketing is to influence and sustain positive behaviour change (Rothschild, 1999), which can be translated into loyalty to a social behaviour
Breastfeeding loyalty

- Breastfeeding is not a discrete behaviour
  - Many women have more than one child- breastfeeding can occur over several years
- Attitudinal loyalty is intention and commitment to breastfeed
- Behavioural loyalty is the act of continuing to breastfeed (duration)
- Applying loyalty to breastfeeding is appropriate as it explicitly acknowledges competition and choice

Breastfeeding loyalty

- Emotional influences need to be incorporated with the loyalty framework for social marketers to better understand breastfeeding duration
- To clarify emotional influences the Model of Goal Directed Behaviour (MGB) (Perugini & Bagozzi, 2001) has been used
- MGB places emotion in a central position to explain sustainable behaviours
Model of Goal Directed Behaviour

- Applied to social issues such as:
  - Body weight (Perugini & Bagozzi, 2001)
  - Exercise (Abraham, 2003)
  - Smoking behaviour (Perugini, 2005)
- Model identifies specific psychological antecedents (both cognitive and affective) motivating loyalty intentions and commitment and subsequent behaviours
- Applying MGB to breastfeeding focuses attention on women’s goal formation involving breastfeeding (Perugini & Bagozzi, 2001)

Research Question

- **What we know:** Conflicting evidence that attitudes and subjective norms (what others think) influence breastfeeding intentions, and these intentions predict behaviour.
- **The Gap:** What’s missing is the examination of loyalty to a social product, which necessitates the investigation of the key drivers of behavioural loyalty.
- **RQ:** What are the key drivers of loyalty to breastfeeding?
Method

- An online survey was used
- Convenience sample of 469 Australian women
  - Sample characteristics:
    - Average age 31.7 years
    - 57.1% university education
    - 75.9% currently breastfeeding
- Snowballing technique to recruit participants
- **Measures**: Attitude, subjective norms, positive and negative anticipated emotions, perceived behavioural control, attitudinal loyalty and behavioural loyalty (Ajzen, 1991; Perugini & Bagozzi 2001; East et al. 2005)
- Structural equation modelling was used for analysis (AMOS 18)

Results

- Intentions: $r^2 = .35$
- Behaviour: $r^2 = .76$
- Goodness of fit of the structural model
  - RMSEA = .04
  - CFI = .99
Results

Discussion

- Emotions have a stronger impact on breastfeeding loyalty than cognitive factors such as attitude and subjective norms.
- Consistent with current research that emotions and perceived behavioural control/self-efficacy have a significant impact on social behaviour change (Dennis, 1999; Perugini & Bagozzi, 2001).
- This indicates that women already know breastfeeding is good for their baby.
- However, they need the right mix of tools to help them to continue breastfeeding.
Discussion

- The significant positive relationship between attitudinal loyalty and behavioural loyalty suggests a high degree of commitment and intention to breastfeed
- Accounted for 76% of explained variance
- This indicates model captured most of the important factors for sustained breastfeeding behaviour
- By strengthening the antecedents to attitudinal loyalty will increase behavioural loyalty to breastfeeding
- Women will be able to maintain longer breastfeeding duration, therefore not be tempted by substitutes

Conclusions

- Evidence to contradict more rational approaches to social behaviour change
- An approach considering emotions and perceived behavioural control/self-efficacy allows greater understanding of barriers
- If barriers are addressed well, could reduce the costs associated with behaviour adoption
- Breastfeeding more likely to be adopted when consumer has confidence in their ability to breastfeed, and are emotionally attached to breastfeeding
Implications

- Future social marketing programs can provide alternative exchanges including “mother-centred” relationship marketing approach leveraging emotional commitment and perceived behavioural control/self-efficacy
- Programs should highlight the importance of emotional and physical support for breastfeeding that others can provide
- Need to use all 4 Ps, not just promotion which is traditionally used- Interventions need to be delivered at a time and place convenient to women
- Technology can be used to improve breastfeeding outcomes

MumBubConnect intervention

- Theory: Social support and self-efficacy
- A custom made, fully automated 2-way sms based breastfeeding support system (the world's first).

  - The sms system will use a 'keyword' based 'recognition & response' algorithm.

  - Mothers' text a keyword (as stipulated on a ‘Contact Card’) to indicate how they are coping with their breastfeeding and the system will then reply immediately with a response providing tips, compassion and advice.

  - The system incorporated built in mechanisms to provide reporting and assessment of a participant’s behaviour in ‘real-time’.

  - Counselling phone call for women ‘struggling’

- The mbc system will also encourage mothers to call a 24 hour Help Line for further support
  
  - AHA + Women's Health QLD wide
Social Media Strategy

- Facebook
- 304 people ‘like’ the page (compared to 167 at UQ Centre for Mothers and Babies)
- Not an advice/problem-solving site
- Generic mother-oriented issues
  - Issues based to media articles/youtube
  - Comments about mothering and lifestyle that invited responses
Evaluation

- How many women involved
  - 130 women registered to participate
  - 6 women withdrew before the trial began
  - 4 women ceased participation during the trial
  - 120 women completed the full 8 weeks
  - 114 women completed the second survey
  - 95% response rate

- Demographics
  - Mean age of 31.2 years
  - Mean age of infants was 6.7 weeks
  - Focus is therefore on the medium to long term postnatal period where biggest drops in breastfeeding occur
  - 97% were married or in a defacto relationship
  - 92% born in Australia

Tests for Differences T1 and T2

- Confidence / self-efficacy increased
  Using measures developed by Dennis et al 1999
  Confidence score went from 4 to 4.15
  Mean of 5/7 for "the SMS encouraged me to continue breastfeeding" and "the messages made me feel more in control"

<table>
<thead>
<tr>
<th>Construct</th>
<th>T1</th>
<th>T2</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsibility for BF - Maintained</td>
<td>4.36</td>
<td>4.38</td>
<td>NS</td>
</tr>
<tr>
<td>Self-efficacy (increased)</td>
<td>4.00</td>
<td>4.15</td>
<td>.009**</td>
</tr>
<tr>
<td>Coping_positive (increased)</td>
<td>3.38</td>
<td>3.71</td>
<td>.003***</td>
</tr>
<tr>
<td>Coping_negative (decreased)</td>
<td>4.29</td>
<td>4.05</td>
<td>.006***</td>
</tr>
<tr>
<td>Social support (increased)</td>
<td>3.64</td>
<td>3.86</td>
<td>.001***</td>
</tr>
<tr>
<td>Emotions_positive (increased)</td>
<td>4.33</td>
<td>4.35</td>
<td>.03*</td>
</tr>
<tr>
<td>Emotions_negative (decreased)</td>
<td>1.28</td>
<td>1.37</td>
<td>NS</td>
</tr>
<tr>
<td>Challenged (decreased)</td>
<td>2.47</td>
<td>2.08</td>
<td>.003**</td>
</tr>
<tr>
<td>Behavioural loyalty - Maintained</td>
<td>90.96%</td>
<td>94.39%</td>
<td>.50(NA)</td>
</tr>
</tbody>
</table>
Thank You!