

## Understanding Breastfeeding Loyalty and the Key Cognitive and Emotional Influences

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## 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; WHO2001)
- 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

**Courier Mail**  
**“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-Theile & 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?

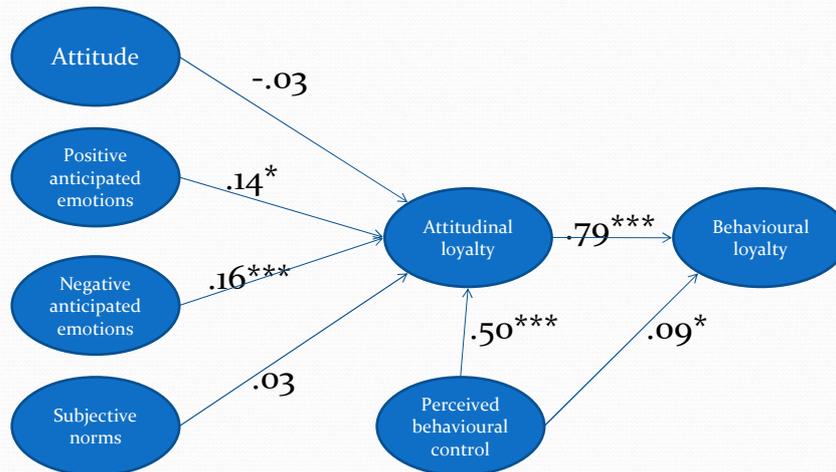
## Method

- 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
  - ABA + Women's Health QLD wide



## contact card

[mumbubconnect.com.au](http://mumbubconnect.com.au)

mbc support lines (save these numbers to your mobile phone):

1800 017 676 - Women's Health (Toll free outside Brisbane)

07 3839 9988 - Women's Health (Brisbane residences only)

1800 686 2686 - Australian Breastfeeding Assoc. (Toll free)

**mumbubconnect text message response guide**

ALL RESPONSES **MUST** START WITH MBC (eg: MBC GOOD)

<small>mbc message</small>	<small>Your response word</small>
<small>Stopped breastfeeding?</small>	STOPPED
<small>If you're feeling good</small>	GREAT, GOOD, HAPPY, CALM
<small>If you're feeling average</small>	AVERAGE, TIRED
<small>If you're struggling</small>	WORRIED, CONFUSED, DOWN
<small>Feeding Issues</small>	OVERSUPPLY - producing too much milk UNDERSUPPLY - not producing enough ENGORGED - breasts swollen and sore SORE - sore nipples ATTACHMENT - baby won't latch well ALWAYS - feeding constantly 24/7 EXPRESSING - not getting much milk

To stop receiving messages    END

Supported by:  
Queensland University of Technology & the Australian Breastfeeding Association



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# 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



mumbubconnect Like  
An update on "Baby Gaga" breastmilk icecream  
**UK removes breast milk ice cream from shop**  
[www.wavy.com](http://www.wavy.com)  
649 Impressions · 0.46% Feedback  
March 2 at 7:40am · Comment · Share  
**Heidi White** and that is why the idea didn't sit well with me.  
Write a comment...



mumbubconnect  
What do you have in your nappy bag that you can't be without?  
601 Impressions · 0.67% Feedback  
March 9 at 9:07am · Like · Comment  
View all 4 comments  
**Christianne Schultz** normally just the wipes as we are never really to far from home and we are close to shops to buy nappies if we really need them  
March 9 at 9:51am · Unlike · #0 1 person  
**Natasha Gibson** yep def wipes! they come in handy in all sorts of situations!!  
March 9 at 11:49am · Unlike · #0 1 person  
Write a comment...

## 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
  - 95% 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”

Construct	T1	T2	Sig
Responsibility for BF - Maintained	4.36	4.38	ns
Self-efficacy (increased)	4.00	4.15	.005**
Coping_positive (increased)	3.38	3.71	.001***
Coping_negative( decreased)	4.29	4.05	.000***
Social support (increased)	3.64	3.86	.000***
Emotions_positive (increased)	4.23	4.35	.03*
Emotions(negative) maintained	1.28	1.37	ns
Challenged (decreased)	2.47	2.08	.002**
Behavioural loyalty - Maintained (% breastmilk given yesterday)	90.91%	92.39%	.50(ns)



**Thank You!**