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Increasing Loyalty to Breastfeeding: Investigating a Product Development Strategy

JOY PARKINSON

*QUT Business School, Queensland University of Technology, Brisbane, Queensland,
Australia*

REBEKAH RUSSELL-BENNETT

*QUT Business School, Queensland University of Technology, Brisbane, Queensland,
Australia*

JOSEPHINE PREVITE

UQ Business School, The University of Queensland, Brisbane, Australia

ABSTRACT

This paper demonstrates how social marketing insights were used to influence women's loyalty to breastfeeding. The paper reports on a social marketing campaign undertaken by the Australian Breastfeeding Association and a government health department, which used a product development strategy in order to increase breastfeeding loyalty. Seeking new approaches to support breastfeeding behaviors is critical and timely, because while initiation rates of breastfeeding are high in developed countries such as the UK, Australia, Canada, and the USA, duration rates are significantly lower. Results indicate that a product focused strategy influences pregnant women's loyalty to exclusively breastfeeding.

KEYWORDS social marketing, loyalty, breastfeeding duration, new product development

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INTRODUCTION

The Australian Breastfeeding Association (ABA) is a not-for-profit (NFP) organization which supports and promotes breastfeeding (Australian Breastfeeding Association [ABA], 2010). Their primary objective is to “provide mothers with practical mother-to-mother support” (ABA, 2010). Recognized internationally as a source of accurate information about breastfeeding management and research (ABA, 2010), the ABA provides this information to its counselors and also educates the wider community including universities and professional organizations through the support of the Lactation Resource Centre (ABA, 2010). In 2008, the ABA adopted a social marketing approach to address the barriers and challenges to breastfeeding experienced by women. Specifically, they implemented a product-based campaign to increase the exclusive breastfeeding duration rates for women. Leveraging an existing relationship with Queensland Health (a state government department), the ABA received financial support to develop a new strategy to address the problem of limited breastfeeding duration (the number of months women breastfeed their babies) and exclusive breastfeeding (infants fed only breastmilk). Taking a new approach was critical as statistics indicated that prior campaigns had minimal impact. Whilst 90% of all infants received at least one breastfeed in Australia (ABA, 2010), it was revealed that only 48% of infants received *any* breast milk at six months in Australia (Australian Bureau of Statistics [ABS], 2006). The ABA turned to a social marketing approach and designed a campaign with the aim of increasing exclusive breastfeeding duration rates. The ABA implemented the campaign in 2008 and evaluated it in 2009.

To date, the ABA and Australian government health departments’ breastfeeding campaigns have adopted an education perspective, with an emphasis on promoting the social idea (exclusive breastfeeding) by focusing on the benefits for the baby. This approach has not achieved the desired increases in breastfeeding behavior in developed nations; arguably

because, in general, women are already knowledgeable about breastfeeding and the resultant benefits for their baby (Dunstone, Azmitia, & Baulderstone, 2008; Parkinson, 2009).

Endeavoring to influence behavior change by focusing solely on marketing messages aimed at the individual may be too narrow an approach as individuals live in complex environments (Wymer, 2010). An alternative strategy to advertising and communication only campaigns involves designing and implementing a social marketing mix that integrates other marketing elements. In particular, this paper focuses on product strategy using Kotler and Roberto's (1989) *product-market fit* approach. A product-market fit seeks to link the needs of the market to the social idea offered. To achieve product-market fit for exclusive breastfeeding, ABA implemented a product development strategy that tangibilized the social idea of exclusive breastfeeding benefits for mothers.

MOVING FROM ONE P TO FOUR P MARKETING

Reviewing the published reports and literature on breastfeeding campaigns aimed at increasing duration reveals that communication is often the only marketing mix element (one P) used, resulting in limited improvements in duration rates. While a focus on communication is consistent with a health promotion/education approach, social marketing requires the use of additional P's to assist in facilitating behavior change, including: product (goods, services, and ideas), price (benefits/barriers and exchange), and place (distribution) (French & Blair-Stevens, 2006). The unique feature of social marketing is that it derives insight from the commercial marketing sector and applies it to resolve social and health problems using a mix of marketing P's. The use of all four P's delivers value to the target in a way that benefits society (public health, safety, the environment, and communities), as well as the individual (Kotler & Lee, 2008). As reported previously in *Health Marketing Quarterly* (i.e., Rimal & Creel, 2008), the key difference between social and commercial marketing is that the

underlying objective of social marketing is to improve the wellbeing of the consumer as opposed to the profit orientation of commercial marketing. With this in mind, this paper reports the use of the commercial marketing technique of *new product development* to increase the duration of breastfeeding behavior.

A SOCIAL BEHAVIOR: BREASTFEEDING LOYALTY

The aim of the ABA campaign was to increase duration of breastfeeding. Applying a marketing lens to this problem reframes the focus on women's short term adoption of breastfeeding behavior, to the lack of repeat usage (behavioral loyalty) of breastfeeding behavior. Rundle-Thiele and Russell-Bennett (2010) previously identified loyalty in health contexts as an important outcome; yet, its application to social product ideas, such as donating blood, organ donation, and loyalty to a smoke free home, is only recent (Masser, White, Hyde, Terry, & Robinson, 2009). In commercial marketing, loyalty is defined as "the biased (non-random) behavioral response (purchase) expressed over time by some decision-making unit with respect to one or more alternative brands and is a function of psychological processes" (Jacoby, 1975, p. 25). Applying this thinking to a breastfeeding context defines loyalty as: a social behavior practiced by women over time in preference to an alternative infant feeding method (behavioral loyalty), which is accompanied by a positive attitude towards breastfeeding (attitudinal loyalty).

Lifestyle and convenience factors are contextual influences within a loyalty framework (Uncles, Dowling, & Hammond, 2003), as well as important barriers to breastfeeding (Dennis, 1999). Thus, the use of a loyalty approach is relevant for healthcare marketers because it incorporates competitive alternatives and behaviors, emphasizes the voluntary nature of the behavior, and contains explanatory variables that are both contextual

and individual. This paper therefore makes a significant contribution to the development of the loyalty construct in the social marketing domain.

DEVELOPING A PRODUCT-MARKET FIT IN BREASTFEEDING

Social marketing calls for the application of a mix of marketing elements (product, price, place, and/or promotion) when designing behavior change strategies. The product element in a social marketing context consists of the idea (desired behavior), goods and services (Kotler and Roberto, 1989) and benefits being “sold” by the marketer (Kotler & Lee, 2008). What is typically “sold” in social marketing exchanges is a social behavior that needs to be sustained over time for the benefit of consumers and society. Consumers continue to buy a product only when it offers value, which derives from the degree of product-market fit. Kotler and Roberto (1989) state that when the fit between market (i.e., new mothers) and product (i.e., exclusive breastfeeding) is wrong, the target market may not engage in the desired behavior appropriately (i.e., extending the duration of exclusive breastfeeding).

A social marketing approach also argues for prioritizing the consumer’s reality and identifies ways to help the consumer to fit a desired behavior into their lifestyle reality (Lefebvre, 2010). Breastfeeding research identifies that the reality of breastfeeding confronting mothers includes lifestyle barriers such as: integrating breastfeeding with work responsibilities, family pressure and social norms, and women’s sexuality (Dennis, 2002). Working from this base, the product-market fit approach informed the development of a tangible object to reflect the ABA’s benefit-focused positioning strategy to highlight breastfeeding benefits to both mother and baby. Past ABA campaigns focused on the intangible aspects of the social idea, where the benefits are realized sometime in the future (e.g., future health of the child). Rothschild (1999) reminds us, however, that self-orientated short term benefits motivate human beings to a great extent. Thus, the tangible object acts to

provide an immediate benefit to the mother, which in-turn will have a long-term benefit for the child. The ABA mother-centered product strategy comprised a helpline contact to support mothers facing breastfeeding challenges, a membership to the ABA and access to articles and tips on breastfeeding, a network of supportive mothers, and a photo frame which reminded mothers about breastfeeding benefits.

METHOD

This paper presents a case study of a NFP organization's approach to a social marketing problem. The case study focus is on exhibiting an understanding of the market dynamics present within a single setting, using a combination of data collection methods. In this case, mixed methods - qualitative and quantitative - were used to describe and evaluate the ABA's social marketing campaign (Huberman & Miles, 2002). The qualitative method of focus groups was used in the commencement of the product development process for the purpose of concept testing. This process occurred in two rounds and involved three different focus groups consisting of ten women. Survey research was then used to gather attitudinal data from expectant mothers and a second round of survey research was conducted post birth to obtain breastfeeding behavioral data. The quantitative data was analyzed using *t* tests and chi-square tests in SPSS 16.0 in order to examine attitudinal and behavioral loyalty towards breastfeeding as a result of using the new product. Using this mixed method approach provided rich information for case study analysis, which assisted in describing the ABA's successes and challenges in using a social marketing approach to influence women's loyalty to breastfeeding.

NEW PRODUCT DEVELOPMENT PROCESS

Three focus groups (30 women in total) informed the idea generation and screening processes. The ABA used focus group insights to guide concept development. A second round of three focus groups (an additional 30 women) then tested this product concept. The women were shown a series of images and a prototype of the product pack during the focus groups to elicit feedback and comments.

The sample population in the focus groups was first time expectant mothers - in their second trimester - or new mothers with babies less than 6 months of age, aged between 21 and 29 years, who were inclined to use the public hospital system. Mothers who intended to use the public hospital system were selected in order to include younger women and women from a broad range of socio-economic groups in the sample. This is important as these groups have lower breastfeeding initiation and duration rates than the mainstream (Amir & Donath, 2008).

RESULTS: A SUCCESSFUL NEW PRODUCT LAUNCHED

The following section uses marketing's new product development (NPD) process to outline the campaign results. The NPD process (Andreasen & Kotler, 2003) includes four steps: Step 1: Ideas generation and screening; Step 2: Concept development; Step 3: Concept testing; and Step 4: Product launch (Crawford & Di Benedetto, 2007). After discussing the details of the NPD process, this section reports the results of the postcard/online survey and the follow-up telephone survey.

Step 1: Idea Generation and Screening

Idea generation and screening comprises recognizing the opportunity/need for a product and the development of multiple ideas to meet that opportunity (Crawford & Di

Benedetto, 2007). At this step, key stakeholders at the ABA developed the ideas for the new product. They explored a variety of product alternatives, including: soft toys for the child to hold when breastfeeding, key rings with support information, and a fridge magnet photo frame to hold a baby photo or breastfeeding information. The members of the ABA committee selected a pop-out photo frame magnet as the tangible product in the information pack, given their success in other social product contexts.

TABLE 1 Women's Responses to Images for Use on Photo Frame

Rejected Images	
Image	Comments
<ul style="list-style-type: none"> • She looks gorgeous • She doesn't look like a new mum • She is too skinny • Glamour shot • I can't relate to her – she looks fake • She looks like she has a lot of spare time
<ul style="list-style-type: none"> • They all look very busy • It's not really my scene • She looks like she is leading the pack • Its about exercising • Looks like an ad that's trying to sell prams • New mums trying to be healthy
<ul style="list-style-type: none"> • Looks like it belongs in a baby calendar • She looks like a 16 year old mother • Looks like a promotion for a clothes catalogue • It's all about the hat – I noticed the hat first
<ul style="list-style-type: none"> • She looks a bit more normal here • She looks a bit tired • She is not paying attention to the child • She still looks too glamorous
Images Recommended for Further Testing
<ul style="list-style-type: none"> • More spontaneous • Looks more like a relationship • An activity you want to be involved in • That is something I would do with my baby • There is joy and love in how she is holding the baby • I can picture myself in that photo

Rejected Images
<ul style="list-style-type: none"> • She looks very natural • She has a very welcoming face • She could be my friend • I would wear something like that • Looks like a very normal woman • The colours are bright and open
<ul style="list-style-type: none"> • More casual • That is something I would wear • She looks very natural • The baby needs to be more in view • Looks like someone that sits in the park –someone I would talk to

Step 2: Concept Development

Concept development consists of refining the idea through customer input and additional data (Crawford & Di Benedetto, 2007). The focus groups identified attitudes towards breastfeeding in general, and real and perceived barriers to breastfeeding, as well as images and key messages for inclusion on the product and the reasons for their appeal. The ABA tested seven images and seven messages at this stage. Participants found images that were mother-centered, such as a mother pushing her baby in a pram or a mother holding her baby (as shown in Table 1), appealing. Table 2 provides a summary of responses to all seven messages.

TABLE 2 Summary of Women's Responses to Messages

Message Content	Message Focus	Outcome
1. <i>Breastfeeding for 12 months...good for you...good for baby</i>	Mother & baby-centered	Recommended for further testing (the time goal of 12 was seen as positive compared to message 2)
2. <i>Breastfeeding...Good for you...Good for baby</i>	Mother and baby centered	Rejected. Exclusive breastfeeding for 6 months was not seen as realistic or acceptable
3. <i>Exclusive breastfeeding for 6 months</i>		
4. <i>Breastfeeding...Good for you</i>	Mother-centered	Rejected. Too mother-centered, selfish
5. <i>Planning to breastfeed? Prepare to succeed Exclusive breastfeeding for 6 months</i>	Mother-centered	Rejected Exclusive breastfeeding for 6 months was not seen as realistic or acceptable.

Message Content	Message Focus	Outcome
		Not EBF for 6 months means failure and this was seen as judgmental
6. <i>Planning to breastfeed Plan to succeed</i>	Mother-centered	Rejected Setting yourself up to fail.
7. <i>Once baby comes, how can you look great and feel great? Breastfeed exclusively for 6 months</i>	Mother-centered	Rejected. Too mother-centred, selfish, positioning makes women feel self-conscious
8. <i>Breastfeeding...every month counts</i>	Baby-centered	Recommended for further testing Was seen as more friendly and inspiring

Step 3: Concept Testing

Concept testing involves understanding the technical aspects of the idea and its further refinement through customer input (Crawford & Di Benedetto, 2007). From the first round of focus groups, the ABA selected three images and two messages for concept development and testing. The purpose of this phase was to identify an appropriate image, message, and packaging for the photo frame product. ABA also used these focus groups to finalize details of the product in terms of packaging and usability. Packaging can be useful for both containing the product and promotion, as an eye-catching package can capture the consumer's attention (Duncan, 2005).

Preferences for Images

Women were shown a fridge magnet and told that the images and copy they would be viewing would be printed on a similar magnet. The twelve images were a combination of three different pictures (mum with baby in pram, mums talking with other mums holding babies, and silhouette of mum holding baby in air), two different messages (*Breastfeeding...every month counts* and *Breastfeeding for 12 months...good for you...good for baby*), and two different borders (aquamarine blue and clear). The logos at the bottom of the product were the ABA, Queensland Government, and Eat and Be Active (a Queensland

Health initiative). This demonstrates an integration of the campaign across multiple health initiatives. The participants rejected Series 1, mother and baby in pram, as most agreed that they could not relate to the woman shown given she appeared too thin and active to be a “normal” or “real” new mum. Many participants also said it made them feel lazy and guilty for not being more active and healthy. The participants also rejected Series 2, mums talking, as the characters portrayed in the image were white Anglo Saxon women, and this could lead to some women feeling alienated. Participants preferred Series 3, silhouette, as the image was appealing to them because of the characters and the setting. Most of the participants agreed that a border that was consistent with the colors in the central image, rather than the blue, was also more appealing.

Preferences for Message and Packaging

The message chosen for the product was: *Breastfeeding for 12 months...good for you...good for baby*. Participants found this message the most appealing, and it provided a breastfeeding goal. This is evidenced by a participant’s comment: *“I think it’s okay. It tells me a lot of stuff really...that I should breastfeed for at least 12 months and that it’s good for me and my baby...I don’t think you need much more on there, otherwise you start tuning out”*. The other copy tested was: *Breastfeeding...every month counts*. However, this copy did not appeal to most participants. Most thought it sounded “pushy”, and felt that it was pressuring them into something, taking away their choice. One participant commented: *“I don’t like the way it sounds. I feel like I am being pressured into it...it sounds like the government is telling me what to do AGAIN and I don’t like being told what to do”*.

Clear packaging was selected over an envelope as most participants agreed that they were more likely to open the clear package given they could see the magnet inside and thus,

would be more inclined to use it. Whereas, if they were given the envelope, they would be more likely to file it unopened. Most of the women agreed that they received a lot of information throughout pregnancy from many different sources. Focus group feedback also indicated that the program needed to merge any message with the product, thus combining communication with the product.

Final Concept Selected

The selected image for the photo frame featured a mother and child in an intimate and joyful scene on a beach at sunset with an orange border (see Figure 1), as it better matched the image rather than a blue or clear border as shown in Table 3. Focus group feedback also indicated that the ABA logo should appear more prominently, compared to the government's logo (Queensland Health) to reduce the impression that the government was directing women's behavior. Adopting this approach to logo placement in communication is consistent with findings from prior research in social marketing concerning adverse consumer reactions in health communication (Sibbick, Previte, & Russell-Bennett, 2007). At the same time, however, the government logo was required because it was the funding body and government logos can provide credibility in health contexts (Ellis et al., 2009).

FIGURE 1 Final Photo Frame Design

Step 4: Product Launch

Product launch entails the implementation of the product, through its launch into the market (Crawford & Di Benedetto, 2007). The final product package consisted of a new product (photo frame magnet as shown in Appendix A) in addition to the existing products of access to a 24-hour breastfeeding helpline number, *Breastfeeding Confidence* booklet, and a 12 month subscription to the ABA. The photo frame magnet was developed as a tangible object women were likely to retain and use, in that it should remain visible enough to serve as a reminder of the helpline number and as an encouragement to continue breastfeeding.

Other aspects in the marketing mix, including price, place, and promotion, supported the product launch. The product package features addressed the psychological price of breastfeeding potentially perceived by mothers, including: fear, lack of breastfeeding knowledge, and lack of confidence. This was achieved by providing a link to a counseling helpline and support groups for mothers, which both provide useful information about breastfeeding (e.g., feeding positioning and how to store expressed breast milk).

The public hospital system (imaging department) was chosen as the specialty distribution (place) channel to reach the target group effectively at their 18 week ultrasound appointment, where a health professional handed the information pack to the expectant mothers. The objective of place in a marketing strategy is to ensure that access to social marketing products and services is both convenient and easy.

Results of Survey

Throughout Queensland, 7,767 packs were dispersed to imaging departments in public hospitals for distribution at the 18 week ultrasound appointment to reach women early in their pregnancy who were still formulating their infant feeding decisions. The questionnaire sample was a cohort of 357 expectant mothers who received a product pack from the ABA and responded via questionnaire postcard or online over a three month period

(May 15, 2008 to August 15, 2008). This represents a 5% response rate, providing feedback on the ABA's product strategy, and is consistent with previous research (e.g., Ahluwalia, Tessar, Grummer-Strawn, MacGowan & Benton-Davis, 2000) in this area. Of the 357 women who responded to the postcard survey, 179 completed the follow-up telephone interview, resulting in a sample of 179 for the purpose of overall campaign evaluation.

The characteristics of the survey sample indicated that the women were of an older age group (mean = 31 years old), which is consistent with the Australian Bureau of Statistics' data on the ageing nature of mothers. The mean age of women giving birth in Australia is 30.7 years (ABS, 2007). A high proportion (81%) of the study participants were using the public hospital system and defined as "middle-class". Sixty percent earned less than \$80,000 p.a. and 52% held university qualifications.

Of the 357 respondents who completed the pre-birth postcard survey, 242 (69.3%) were first time mothers who intended to give birth in a public hospital. Of these first time mothers, 81% indicated they intended to breastfeed for a minimum of six months, with 57% of those women indicating they intended to continue breastfeeding for 12 months. Of the 357 women who responded to the first survey, 179 participated in the follow-up telephone survey.

Measures

Expectant mothers were asked to complete attitudinal measures on a postcard provided inside the pregnancy product pack. These measures assessed perceived product quality, intended use of the product items, breastfeeding initiation intention, and attitudinal loyalty (intention to breastfeed for a specific period of time) (see Appendix A for items). Demographic questions and screening questions were also included: *This is my first baby* and *I intend to give birth in a public hospital*. The question *I am happy to be followed up on this survey* was used to identify respondents who were available for the follow-up phone

interviews. The follow-up survey was conducted over the telephone and contained measures of behavioral loyalty, initiation, the impact of product pack on breastfeeding duration, and the use of the product.

A chi-square test was performed on categorical variables and a *t* test on loyalty variables to identify any differences in the scores pre and post birth. Appendix A delineates the scores for each measure. The results showed no significant differences in the pre and post natal measures of initiation, product quality, and product use. Pre-birth intention to initiate was high, with 100% of women indicating they intended to breastfeed, and 100 % of women actually initiated breastfeeding. This again is higher than the population average for breastfeeding initiation of 95% (NHMRC, 2008).

Women's responses toward the product pack and its usefulness revealed positive attitudes towards the product as a useful support in assisting breastfeeding with almost all women using the pack. Women viewed product features favorably before the birth, which translated into high levels of actual use. This high usage demonstrates women's satisfaction with the product pack and its various features.

There was a significant difference between attitudinal and behavioral loyalty, with women intending to breastfeed for longer than the level of actual breastfeeding. The mean number of months that women intended to breastfeed for was almost a year (11.8 months), however, they actually breastfeed for an average of eight months. This indicates that social marketers should use attitudinal loyalty scores with caution when predicting actual breastfeeding rates. Overall, however, the behavioral loyalty score (75% of babies were breastfed) for this sample was greater than the national average for breastfeeding duration (59% of Australian babies) (National Health and Medical Research Council [NHMRC], 2008). As identified in the breastfeeding literature, support is fundamental in breastfeeding behavior and for the women in this sample. Interestingly, 79.3% of the women surveyed also

mentioned using other support sources, and identified significant women in their lives (mothers, sisters, sisters-in-laws, and friends) as a source of support.

DISCUSSION

Breastfeeding is a fundamental base upon which a person's future health is founded (Booth & Parsons, 2001). Earlier health literature, and this study, highlight that improving breastfeeding practices requires behavior change, something that does not happen spontaneously and without encouragement from the community. There is a need to go beyond education and communication approaches to achieve behavior change in the form of extended breastfeeding duration. Social marketing is an approach that can achieve success when at least two or more elements of the marketing mix are designed and implemented (French & Blair-Stevens, 2006) to support and sustain women's breastfeeding behaviors. As evidenced in this research, developing social behavior change strategies that influence women's attitudes towards breastfeeding achieve increased breastfeeding duration.

Complex behavior change strategies require time and support from the organizations involved in managing the behavior change program. NFP organizations, such as the ABA, have to meet their organizational goals, as well as balance these against the mission and goals of any partners. When a partner is a government department, this can create additional marketing challenges (i.e., reaching consensus over use of branding, acceptance of message and promotional activities, and ultimately, who might be an appropriate target audience for a social marketing campaign). For example, Queensland Health tends to focus on *at-risk markets*, which are the hardest to impact from a marketer's perspective and are open to failure (Maibach, 2002). In contrast, a typical benefit of commercial marketing is that the organization sets the goals, with marketing implemented to directly benefit the organization for desired outcomes, and budgets may be unlimited or responsive to customer relationships,

desires, and needs. Partnerships can also impact the relationship an organization has with their target audience.

The findings from this study presents an example of best practice in the marketing of breastfeeding behavior by demonstrating the first ABA campaign that achieved attitudinal loyalty of 81% to breastfeeding duration of six months. Furthermore, the success of the product strategy highlights the importance of taking a product/service focus in social marketing aimed at establishing a product-market-fit that provides a market solution, such as providing transparent support options to mothers at times when breastfeeding is difficult. This approach involved designing a tangible product, which is typically the focus in commercial marketing, which included a bundle of benefits, including ABA membership to support networks and reminders of the ABA website and support line number, and content focused on helping mothers address the challenges inherent in breastfeeding. Primary research (i.e., focus group) also guided ABA's success, which informed the identification of benefits sought by the target audience and the barriers of breastfeeding: difficulties, embarrassment, and lack of milk supply (DiGirolamo, Thompson, Martorell, Fein, & Grummer-Strawn, 2005). The investment in research provided the ABA with critical marketing knowledge that assisted in the development of the product strategy. For example, the ABA addressed the barriers identified during focus groups by displaying the ABA helpline number and the web address on the photo frame.

The photo frame, the tangible aspect of the product idea (to exclusively breastfeed for six or more months), was effective because it provided expectant mothers with a regular, tangible reminder of where to get help when they were breastfeeding and encouraged them to set a breastfeeding goal, which research evidence shows leads to higher rates of attitudinal loyalty (Donath & Amir, 2003; Wambuch, 1997). Further development of existing ABA services was also successful in that it gave mothers more than one touch point with the ABA, with 83.6% of first time mothers surveyed indicating they intended to use the magnet (which

will serve as a visual reminder of the ABA). While 87.1% indicated they intended to visit the ABA website, allowing them to create a two-way relationship, 72.7% said the information pack would help them to breastfeed longer, which demonstrates increased loyalty to breastfeeding. The findings also show that over 90% of survey respondents have used the photo frame magnet.

CONCLUSION AND FUTURE RESEARCH

The purpose of this paper was to report on the results of a NFP social marketing campaign that used a product development strategy to increase attitudinal loyalty levels of pregnant women towards exclusive breastfeeding duration of six months and continued breastfeeding to 12 months. The findings presented highlight the positive influence a product strategy can have on promoting a complex behavior, such as exclusive breastfeeding. The timeframe imposed by the partnership funding requirements was a limitation in this study. Nevertheless, the results do highlight the promising outcomes for NFP organizations that invest in a social marketing strategy that incorporates multiple elements of the marketing mix, such as communication, product development, and research insights.

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TABLE 1 Women's Responses to Images for Use on Photo Frame

Rejected Images	
Image	Comments
<ul style="list-style-type: none"> • She looks gorgeous • She doesn't look like a new mum • She is too skinny • Glamour shot • I can't relate to her – she looks fake • She looks like she has a lot of spare time
<ul style="list-style-type: none"> • They all look very busy • It's not really my scene • She looks like she is leading the pack • Its about exercising • Looks like an ad that's trying to sell prams • New mums trying to be healthy
<ul style="list-style-type: none"> • Looks like it belongs in a baby calendar • She looks like a 16 year old mother • Looks like a promotion for a clothes catalogue • It's all about the hat – I noticed the hat first
<ul style="list-style-type: none"> • She looks a bit more normal here • She looks a bit tired • She is not paying attention to the child • She still looks too glamorous
Images Recommended for Further Testing
<ul style="list-style-type: none"> • More spontaneous • Looks more like a relationship • An activity you want to be involved in • That is something I would do with my baby • There is joy and love in how she is holding the baby • I can picture myself in that photo
<ul style="list-style-type: none"> • She looks very natural • She has a very welcoming face • She could be my friend • I would wear something like that • Looks like a very normal woman • The colours are bright and open
<ul style="list-style-type: none"> • More casual • That is something I would wear • She looks very natural • The baby needs to be more in view • Looks like someone that sits in the park –someone I would talk to

Appendix A Measurement Items and Descriptive Results

Measure (Source)	Item (Post-natal)	Pre-birth Response	Post-natal Response	Difference Test
Initiation (Dennis, 1999)	I intend to breastfeed (Did you initiate breastfeeding?)	100% yes 0% no	100% yes 0% no	<i>No significant differences</i>
Product quality (McColl-Kennedy & Kiel, 2000)	The information in the pack was easy to understand (Was the information pack useful?)	100% yes 0% no	31.8% very useful 63.7% useful 4.5% not useful	<i>No significant difference</i>
Product support for loyalty (McColl-Kennedy & Kiel, 2000)	The product pack will help me breastfeed longer (Did it/will it help you to breastfeed longer?)	73.0% yes 3.5% no 23.5 unsure	68.7% yes 31.3% no	<i>No significant differences</i>
Product use-photo frame (Ajzen, 1991)	I intend to use the photo frame (Did you use the photo frame?)	89.9% yes 2.8% no 7.3% unsure	80.4% yes 19.6% no	<i>No significant differences</i>
Product use-pamphlet (Ajzen, 1991)	I intend to keep the pamphlet as a reference guide (Did you refer to the information pamphlet?)	90.5% yes 3.4% no 5.6% unsure	74.9% yes 25.1% no	<i>No significant differences</i>
Product use-ABA website (Ajzen, 1991)	I intend to visit the ABA website (Did you visit the ABA website?)	95.5% yes 1.7% no 2.8% unsure	73.2% yes 26.8% no	<i>No significant differences</i>
Loyalty (Bennett & Rundle-Theile, 2001)	Attitudinal I intend to breastfeed for_ months	Mean = 11.81 SD = 5.13	Mean = 7.94 SD = 3.48 (76% still breastfeeding)	$t(1) = 3.16, p < .01$
(East et al., 2005)	Behavioral Are you still breastfeeding? If not how long did you breastfeed for?			