

## Bookstart Bump

# Evaluation of intervention impact amongst expectant mothers

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Prepared by Liberty Venn, Free Thought Research Ltd.

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“I liked talking to staff from the Children’s Centre about my baby. Before this I said Bump. Now I treat my Bump like a little person.”

*First time mother at 30 weeks, age 23, Darlington (Intervention)*

## 1 Acknowledgement and thanks

BookTrust and Free Thought Research would like to offer their sincere thanks to the Early Years, Education, Family Partnership and Health Practitioners and Librarians nationwide that committed considerable time and energy to help plan and implement the Bookstart Bump pilot.

With your help we have been able to work with over 100 vulnerable expectant mothers, explore the impact of gifting in seven different settings and compare the impact of ante natal and post natal interventions against a control group. Your insights and expertise around gifting to this audience have added considerable value both to the project's aims and to the women participating in the pilot.

We would also like to thank The Dulverton Trust for the generous funding that enabled us to conduct this project.

## 2 Executive summary

Bookstart Bump is aimed at vulnerable expectant mothers to encourage them to talk, sing or say rhymes, and read to their baby in utero. The intervention involves three packs including books, rhyme booklets/CDs and information and guidance on the benefits and practicalities of communicating with bump and new born. Children's centre practitioners gift packs to targeted women twice during pregnancy and once after birth.

The rationale for Bump recognises the need to develop resources for women presenting a variety of social and emotional needs, some of whom may have poor literacy skills or be intimidated by reading. The CD included within the first Bookstart Bump pack seeks to address this by providing women with aural inspiration for shared rhymes with their baby. The bath book in the second pack, and black and white book in the third packs are also fully accessible to those with poor literacy skills, whilst Practitioner delivery seeks to introduce women to the contents of the pack and highlight key messages for those that cannot read.

The programme is based on the principle that acting early is vital for enhancing child outcomes. Research suggests that the brain has an enormous capacity for change before birth, reducing rapidly to approximately a third of this capacity at birth and continuing to decrease with age (Center on the Developing Child, 2007) therefore what we do to prepare and support parents-to-be at this very early stage is crucially important in cognitive, social and emotional outcomes. Evidence also shows how important the development of a positive home learning environment is for a child's literacy development, school attainment and health outcomes (Sylva et al., 2004).

The programme aims to support maternal bonding, increase knowledge about, and confidence in, communicating with bump and baby (through talking, rhyming and reading), and support the development of good habits during pregnancy that can be built on once the baby is born. It also aims to up skill practitioners and test out various delivery methods.

The evaluation took a mixed method approach to examine whether these aims have been met including comparative focus groups (with intervention and control groups), participant and practitioner interviews, end of programme participant and practitioner surveys, and further data collection through practitioner tally sheets at point of gifting.

Findings compare the maternal communication and bonding behaviours and attitudes of a targeted Intervention group of expectant mothers against those of mothers with the same profile that did not benefit from dedicated messages or resources. In doing so it seeks to confirm the *incremental impact* of Bookstart Bump over and above ante-natal messages targeting parents through other channels and settings. It also presents practitioner insight into the impacts of the programme on participating women, as well as feedback on the packs and delivery methods. Case studies of six participating women and across five regions help illustrate the varying impacts of the programme.

The following conclusions are drawn from all data collected, however the post birth survey data captured amongst mothers in both groups reveals findings at odds with qualitative insights gathered elsewhere.

This could be because of systematic differences between the intervention and control groups at the beginning of the research<sup>1</sup>, as well as possible issues with self-reported data. The trust and rapport that was built between practitioner and Bump participants during the programme may have meant that, compared with the control, this group felt more comfortable giving honest answers about sensitive topics, therefore reducing the unreliability associated with self-reporting.

## 2.1 Key findings from qualitative data and practitioner perspectives

### 2.1.1 The impact of Bookstart Bump during pregnancy

Many Bookstart Bump participants expressed pleasure at having been selected to participate in an initiative offering free resources for themselves and their babies. Even those resistant to Practitioner messaging at the outset demonstrated engagement with the packs and a desire to receive all three packs.

Mothers' circumstances sometimes proved a barrier to ease of gifting by Practitioners, but once these were overcome Practitioners reported high engagement with each pack amongst recipients. Women expressed pleasure at having items of high-perceived value for their baby and reported that owning these items and placing them in spaces set aside for the baby made them feel closer to their baby and more like a mother.

Some respondents spontaneously reflected on the changes in their behaviour during pregnancy brought about by discussions with the Practitioner and the presence of resources in the home. The presence of high quality resources permitted expectant mothers to play and to explore emerging feelings around motherhood

The two Bookstart Bump packs received during pregnancy supported discussion with mothers to be around the different ways in which they were interacting with their bump. The non-threatening manner of delivery and accompanying messages reassured mothers about the value of what they were doing and encouraged many mothers to trial new behaviours.

Of particular note was the impact of the first Bookstart Bump pack on first-time teenage mothers who had not previously interacted with their bump. Encouraged to do so (by touch, voice or other sound) many gained a physical response (a kick) from their baby and were motivated to engage further.

Expectant mothers welcomed the opportunity for discussion around how they were bonding with their bump during pregnancy with a children's centre practitioner or fellow mother to be.

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<sup>1</sup> Participants were not randomly allocated to either the intervention or control group as was intended in the original study design which comprised a Randomised Control Trial (RCT). This study was not able to go ahead due to recruitment issues

The opportunity to have a face-to-face conversation with a local practitioner about a non-medical aspect of their pregnancy was hugely welcomed with many participants reflecting on the positive impact this had on their self confidence and awareness of their bump as a baby. Practitioners too, commented on the opportunity these interactions gave them to identify women with needs that they may not otherwise have encountered until after birth, to offer them support and to signpost further services.

Explicit messaging around bonding behaviours were well received, and though not always acted upon during pregnancy mothers demonstrated much better awareness than those in the Control group of the value they could bring to their bump and baby when talking, singing and reading aloud. This knowledge in turn predisposed mothers to feel empowered during pregnancy and after birth regarding their parenting skills and the value they were bringing to their baby. It also increased their motivation to try different ways of bonding with their bump and baby and / or to persevere with talking, singing and reading where they may otherwise have been discouraged.

Practitioners reported some difficulties establishing at first what impact they were having amongst the most hard to reach mothers to be. First-time teenage mothers, those with a care order on their child and those most socially isolated were found to be generally less inclined to interact with Practitioners during all three gifting sessions and sometimes presented as defensive or disinterested. However discussion with some of these women during pregnancy revealed that Practitioner messages were being absorbed if not acted upon immediately, whilst Practitioners reported their personal pleasure at witnessing positive behaviours and interactions after birth, and how these were linked to previous discussions they'd had with participants.

Overall Bookstart Bump recipients were more able to reflect with confidence about the value they were bringing their baby by interacting with the bump during pregnancy. Greater knowledge of the value of what they were doing for their babies was empowering and motivating. Expectant mothers in both the Control and Intervention groups referenced how few opportunities women have during pregnancy to discuss impending motherhood with Practitioners, to explore their instinctive mothering skills and to gain validation around what they are doing during pregnancy. Opportunities to discuss aspects of this with practitioners presented inherent value for those in the Intervention group, gave targeted women confidence in what they were doing during pregnancy and conviction after birth that they had various tools / approaches (gained from the Bump programme) that they could draw on.

Some Bookstart Bump participants (primarily the older participants) used the knowledge gained through their interactions and the pack to help their partner interact with the bump during pregnancy.

Non-Bookstart Bump mothers demonstrated real motivation to interact with their Bump but were less able to articulate the benefit(s) of doing so and less inclined to express pride in these actions during discussions.

Practitioners acknowledge the extent to which fathers want to become part of the 'process' of pregnancy. It helps them prepare for fatherhood and bond with the baby. Responses from fathers introduced to Bookstart Bump by a Practitioner were largely positive; Practitioners

reported willingness on fathers' part to acquire new information and be given tangible ways of becoming involved.

### 2.1.2 The impact of Bookstart Bump after birth

The impacts on mothers (and some fathers) of having participated in Bookstart Bump are also evident after birth.

Mothers that had already experimented with different ways of interacting with their bump were quick to continue to use a repertoire of techniques for interacting with the baby. They expressed delight at gaining a reaction from their baby and voiced greater confidence in their actions than Control parents during the very first weeks

Those who had participated in Bookstart Bump but who had done little to date to interact with their baby demonstrated good awareness of the value of their potential interactions and an awareness of the relevance of talking, rhyming and reading from birth

Teenage mothers and mothers who were at risk of not developing an emotional bond with their baby during pregnancy demonstrated good awareness of the techniques at their disposal to interact and bond with their newborn. Practitioners commented on the positive impact of Bookstart Bump on this audience

Young/teenage Bookstart Bump participants expressed an inclination towards baby-centric communications such as singing rhymes or talking in a sing-song language. In contrast young parents in the Control spoke of their baby enjoying the Top 40 with them, enjoying looking at the photographs on their phone or being entertained by the television

A small number of parents in the Intervention group noted the value of shared reading as a means of giving their partners an opportunity to bond with their baby. Some women reported that their partners lack confidence in what to say to their young baby and that reading aloud has helped bridge this gap

The key differences between mothers in each group related to greater apparent willingness amongst Intervention mothers to explore new ways of interacting proactively with their baby, greater pride and belief in doing so (born out of an understanding of its value) and greater propensity to involve partners

The two books and the CD gifted to mothers were of particular appeal. These had been retained by the majority of mothers and encouraged many recipients to trial singing or reading aloud during pregnancy and shortly after birth. A small number of parents commented that they would not have done so without these resources and / or that the resources provided a useful mechanism for engaging their partner or wider family.

### 2.1.3 Practitioner perceptions of impacts across key outcomes

Both Practitioners with strategic involvement and those with responsibility for the implementation of Bookstart Bump observed the positive impact of the Bookstart Bump initiative on participants' propensity to bond with their baby and on their ability to draw on new skills and increased confidence:

- 80% of practitioners report that Bookstart Bump provided an opportunity for **all or most mothers** to bond with their baby (60% reported this for **all** mums)
- 80% of Practitioners report increased understanding of the importance of communicating with baby or bump amongst **all or most of the mothers** they targeted (60% reported this for **all** mums)
- 70% of Practitioners reported that **all or most** of their mothers gained increased confidence to chat, sing or say rhymes to their bump or baby
- 80% of Practitioners perceive **all or most** of their mothers to have gained in confidence to read to their bump or baby and increased their understanding of the importance of communicating with bump or baby.
- 90% of practitioners agreed that Bookstart Bump has encouraged **all or most** of their mothers to share books with their child at an earlier age
- 70% of Practitioners perceive Bookstart Bump to have promoted communication with their bump or baby amongst **all or most** of their mothers
- Consensus was that the black and white board book had the greatest impact on *behaviour* of any item gifted, though it was the giftings that took place during pregnancy that had greatest impact on *attitude and knowledge*.

### 2.1.4 Survey findings

Intervention and Control groups were surveyed post birth (up to 12 weeks after birth) and asked to reflect on their bonding behaviours and attitudes towards talking, singing and reading to their baby during pregnancy and since its birth.

Across all outcomes, *both intervention and control groups* reported high levels of bonding (through talking, rhyming and reading) and confidence during pregnancy and since birth. These findings are inconsistent with focus group discussions with each audience which evidenced clear differences between the groups in terms of attitudes, confidence and skills. This is possibly attributable to the sampling and self-reporting limitations discussed previously.

The inconsistencies between the survey data gathered from participants in both the Intervention and Control groups and insights gathered elsewhere may warrant further research.



### 2.1.5 Identifying a suitable distribution model

All of the Practitioners involved in the delivery of Bookstart Bump worked hard to identify the most appropriate targeting and recruitment strategies for their region. It is recognized that the most *efficient* targeting route might be via Midwives who are aware of both mothers' circumstances and due date and who have universal reach.

However Children's Centre Practitioners were quick to also recognise the potential for gifting via their own channels, to support Children's Centre engagement with expectant mothers as early as possible, to offer relevant support and to signpost other services.

Findings reveal greatest value in a flexible delivery model that Practitioners can adapt to their local structure:

- Some regions have developed or appear to be developing an Under Ones pathway which takes into account interventions with expectant mothers and which heralds greater interaction between Health and Education. In these instances Practitioners will be able to more easily identify relevant expectant mothers and reach out to them
- Some regions that offer wraparound ante-natal services identified opportunities to target expectant mothers outside of Health. However additional information would be required to ensure effective targeting
- Those regions with a dedicated provision for teenage parents, at-risk parents or that offer the PEEP programme for expectant vulnerable families welcomed the opportunity to deliver Bookstart Bump alongside their existing sessions

A rolling programme of implementation of Bookstart Bump would permit Practitioners to identify and implement sustainable targeting methods and in doing so would support best engagement with the hardest to reach families.

### 2.1.6 The opportunity long-term – recommendations

Practitioners were unanimous in their support for both the Bookstart Bump packs and Practitioner-led gifting. Every Practitioner (100%) that completed the survey reported that the packs and the practitioner messaging had equal impact on beneficiaries.

The following recommendations arise from discussion with Practitioners in all regions as well as focus groups and interviews conducted with participants:

#### Flexible delivery model

Practitioners advocate a flexible model of delivery to permit Practitioners in every region to explore the targeting and distribution models most suited to their structure, including distribution of Packs One and Two by different Practitioners if this is necessary.

Where possible, encourage group-based gifting for the first pack since this enables mothers to meet other mothers-to-be and supports a positive personal experience of the Children's Centre. However, we recommend that Practitioners adapt this approach according to the target audience and practicalities for parents.

### Targeting

Continue to target vulnerable mothers, widening the criteria to include older mothers at risk of social isolation or who present as lacking instinctive parenting skills

### Timing

All Practitioners agreed that delivery of the first pack should continue to take place during pregnancy. In the event that there is limited funding or capacity to deliver all three Bookstart Bump packs we would recommend that two packs are gifted. The first to be gifted between 20 and 36 weeks and the second before the baby is 6 weeks. If the initiative is to be revised to include just one pack for parents, this should be delivered sometime between 28 and 35 weeks.

### Pack contents

The most impactful items in the packs (in order) were the key contents - black and white book, CD and bath book. All were very positively received and retained. An area of opportunity for improvement might be to reduce further still the extent of written messaging material included within the packs, substituting this for links to video or images with captions:

- Whilst many women during pregnancy do read the material given to them, some of the core audiences for Bookstart Bump responded best to verbal Practitioner messaging, a video shown to some groups and the illustrations within the first parent booklet
- Adapting the format of this booklet to nursery-friendly postcards or equivalent could further support those averse to reading any form of literature to engage.

### Messaging

The messages within Bookstart Bump were found to be relevant, engaging and of value to participants. The amount of information was suitable to mothers' interest levels, particularly where support was offered with reading texts aloud. It would be worthwhile considering the inclusion of the following within the materials:

- The 'science' behind the value of talking, singing and reading to bump and then baby on a child's development presented in an accessible form
- Specific content for fathers, explaining the benefit to themselves, their partner and baby of their interactions and providing specific examples of how to do so.