Baby Buddy: embracing the power of evidence, innovation and collaboration to reduce child health inequalities

Plenary 2: Early integrated health and psychosocial services for vulnerable children: Clinical and systems approaches and evidence for quality care

ISSOP 2018, 27th-29th Sept Bonn
Early Childhood Intervention Science, Systems and Policies Promoting Healthy Development of Vulnerable Children
Our Vision
Is that all children have the best start in life

Our Aim
To inform and empower parents and professionals to improve outcomes and reduce inequalities
What I will share with you

• Brief scene setting
• The Best Beginnings approach
• Our Baby Buddy app
• Reach and impact in the UK
• The opportunity to collaborate
UNACCEPTABLE INEQUALITIES

Infant Mortality E.g: a baby born in Birmingham is 4x more likely to die in infancy than a baby born in Bath.
(7.2 per 1,000 births in Birmingham v 1.8 in Bath. England Ave 4.3.)

Born under 2500 grams E.g: a baby born in Newham is > 2x as likely to be born under 2500 grams than a baby born in North Somerset.
(10.4% in Newham ve 4.6% in North Somerset. England Ave 7.4%).

Breastfeeding at 6-8 weeks E.g: A six week old baby in Wandsworth is c. 4x more likely to be breastfed than a baby of the same age born in Knowsley.
(77.4% in Wandsworth v 19.9% in Knowsley. England Ave 55%)

Smoking on delivery E.g: a baby born in Blackpool is > 13x more likely to be born to a mother who smokes than a baby born in Westminster
(27.2% in Blackpool v 2.1% in Westminster. England Ave is 10.7)
Understanding babies’ deaths in the UK: 2014

Out of over 780,000 births in 2014...

- 5,623 registered deaths of babies before, during or within the first 4 weeks of birth
- 4,633 deaths of babies born from 24 weeks of pregnancy
  - 3,252 stillbirths
  - 1,381 neonatal deaths

6 deaths for every 1,000 births

How do rates vary across the UK?
Local mortality rates varied across the UK even after taking into account differences in poverty, ethnicity and the age of the mother. They ranged from 4.9 to 7.1 per 1,000 births

What risks do we know about babies who die before, during or shortly after birth?

3x higher risk
- twins
- Black or Black British babies

80% higher
- Asian or Asian British babies

60% higher
- mothers aged 40 and over

60% higher
- mothers living in poverty

50% higher
- teenage mothers
INTRODUCTION

If we change the beginning of the story, we change the whole story.

The Global Strategy for Women’s, Children’s, and Adolescents’ Health (2016-2030) is at the heart of the Sustainable Development Goals. Its vision is a world in which every woman, child, and adolescent realizes their rights to health and well-being – both physical and mental. That is a world in which they have social and economic opportunities, and are able to participate fully in shaping prosperous and sustainable societies. And an essential part of this vision is that young children’s human rights guarantee them the conditions they need to survive and thrive.

We know why this is important. The period from pregnancy to age 3 is when children are most susceptible to environmental influences. That period lays the foundation for health, well-being, learning, and productivity throughout a person’s whole life, and has an impact on the health and well-being of the next generation.

We know what threatens early childhood development. The biggest threats are extreme poverty, insecurity, gender inequalities, violence, environmental toxins, and poor mental health. All of these affect caregivers – by which we mean parents, families, and other people who look after children. The threats reduce these caregivers’ capacity to protect, support, and promote young children’s development.

A framework for nurturing care

The Nurturing Care Framework provides a roadmap for action. It builds on state-of-the-art evidence about how early childhood development unfold and how it can be improved by policies and interventions. Its pillars:

- why efforts to improve health, well-being and human capital must begin in the earliest years, from pregnancy to age 3;
- the major threats to early childhood development;
- the role of nurturing care in preventing these threats;
- what nurturing care is and what it means to nurture;
- the importance of nurturing care in the first 1,000 days of a child’s life;
- the key elements of nurturing care; and
- how to implement nurturing care in practice.

Nurturing care refers to conditions created by public policies, programmes and services. These conditions enable communities and caregivers to ensure children’s good health and nutrition, and protect them from threats. Nurturing care also means giving young children opportunities for early learning, through interactions that are responsive and emotionally supportive.
Our three stage iterative approach


2. Co-creation & delivery of local/regional plans to make our resources ‘business as usual’ within local care-pathways (embedding).

3. Evaluate and disseminate findings about the impact of our resources to inform future developments.
IN OUR FIRST TEN YEARS WE HAVE

- Created five national resources that have reached over 2 million families and that are endorsed by multiple organisations:
  - [babybuddy]
  - [smallwonders]
  - [frombumptobreastfeeding]
  - [babyexpress]
  - [outoftheblue]

- Taken a “Proportionate Universalism” approach

- Been unwavering in our focus on improving outcomes with a commitment to three guiding principles:
  - INNOVATION
  - COLLABORATION
  - EVIDENCE
The behaviour change wheel: A new method for characterising and designing behaviour change interventions

Susan Michie,1 Maartje M van Stralen,2 and Robert West3

Abstract

Background

Improving the design and implementation of evidence-based practice depends on successful behaviour change interventions. This requires an appropriate method for characterising interventions and linking them to an analysis of the targeted behaviour. There exists a plethora of frameworks of behaviour change interventions, but it is not clear how well they serve this purpose. This paper evaluates these frameworks, and develops and evaluates a new framework aimed at overcoming their limitations.
A purposeful intervention in the guise of an engaging and fun app designed to empower parents and parents-to-be, support relationships, enhance conversations and help parents maximise their:

- own physical and mental health
- child’s development
BABY BUDDY

- Directly empowering and informing parents & professionals
- Augmenting & enhancing existing interventions & support
- Taking an “as well as” not “instead of” approach
- Iterating, based on our constant development feedback loop
The rise of the smartphone

The rise of apps

- 5 Million apps available
- >165,000 medical and health apps
- 74% of pregnant women using pregnancy apps don’t check validity of information

Smartphone is a key & growing information source

(with thanks to Dr Adrienne Gordon)
Baby Buddy is available on the NHS Apps Library and endorsed by:

Baby Buddy Awards:

FINALIST

FIRST PRIZE
July 11
First funding application

2011
Baby Buddy stakeholder group formed & regular meetings begin

2012
Seed funding to develop Baby Buddy prototype

Jan 13
Appreciative enquiry

Dec 13
Big Lottery Fund grant awarded

2012
GSTT co-create & plan Baby Buddy embedding

Jun & July 13
Blackpool co-create & plan Baby Buddy embedding

Tender process for app developer

June 14
Beta testing with over 500 parents & professionals

Nov 14
Official launch

2014
Embedding in Bradford, Lewisham, Leicester, M'brough

2015
Embedding gets underway in more areas

March 15
Baby Buddy wins AXA PPP Health Tech & You Award

People-driven digital health and wellbeing
Baby Buddy Features

Bump World
- Today’s information
- Ask me
- Remember to ask
- What does that mean?
- Your appointments
- You can do it!
- Videos
- Bump Around
- Bump Book
- Bump Booth

Baby World
- Today’s information
- Ask me
- Remember to ask
- What does that mean?
- Your appointments
- You can do it!
- Videos
- Baby Around
- Baby Book
- Baby Booth

15 Weeks 3 Days pregnant
172 days to your due date

3 Weeks 4 Days old
**Your brainy baby**

In early pregnancy, Matilda’s brain develops at the amazing rate of 250,000 new cells a minute. At times it’s adding 50,000 new cells a second! Now you are 20 weeks pregnant, she has **200 billion brain cells**. These are then “pruned” so that by the time Matilda is born, she will have **100 billion brain cells** to start exploring the world with.

**Is your relationship with Jo changing?**

Most couples find that becoming parents changes their relationship a lot. For some couples the relationship becomes stronger and deeper. For others it becomes weaker because they don’t have as much time for each other and they feel tired and frustrated. When we’re tired the smallest thing can be taken the wrong way.

**Don’t suffer in silence**

Not everyone feels as happy as they hoped with their new baby. Once the baby blues are past, some new mums have a long period of feeling overwhelmed, miserable, hopeless, tearful, irritable, or constantly anxious. That means they can’t really enjoy their baby. This is called postnatal depression.

The good news is that postnatal depression can be treated with counselling or medication. If you think you might have postnatal depression, it is really important to tell your health visitor or GP. We are here to help.
No matter how much you love Gill, if you find yourself stuck at home all day you may get lonely. There are often so many visitors in the first weeks, but then the excitement dies down and you’re on your own.

Lots of new mums feel like this. Most of us try to meet other new mums who totally get what we’re going through. A good way is to join a new mums support group or club.

Immunisations again

It’s time for Gill’s second set of injections to protect her from some serious diseases. This time there are two injections:

1. The second dose of the “five-in-one” vaccine which protects against five serious diseases (diphtheria, tetanus, whooping cough, polio and Hib).

If you’re ever worried about anything that Gill is or isn’t doing, talk to your health visitor. Every baby is different and learns things in their own way - just like the rest of us.
Geolocation – to help uptake of local services
I've been having a bit of a difficult time feeding Sam so went to the breastfeeding group at the children's centre. Everyone was really nice and great to hear positive stories and also that people know it can be hard. So determined to keep going now, I love the special bond we have!
Over 300 videos

Feelings after birth
- What are "baby blues"?
- Rebecca – feeling low or emotional
- Nicola – changing relationship with my partner
- Linzi – time for yourself
- Rebecca – getting enough sleep
- Emma – bonding with my babies when I was depressed

Common complaints and illness
- What to do if your baby is ill
- Common skin rashes
- Meningitis
- What is reflux?
- What is colic?

Breastfeeding
- Why breastfeed?
- Getting started
- Good positioning for feeding
- Early weeks and months
- Overcoming challenges
- Breastfeeding longer term
- Expressing breast milk
Launched in 2008 and updated in 2014, thanks to funding from the Department of Health.

From Bump to Breastfeeding is in the following languages:
- Urdu
- Bengali
- Somali
- Polish
- Arabic
An independent academic evaluation undertaken across 14 hospitals in 2009 found the intervention was effective.

Following this, our From Bump to Breastfeeding films became incorporated into the DH/NHS England /UNICEF/Start4Life breastfeeding care-pathway.
Why breastfeed?

What’s so good about breastfeeding?
Mums talk about why breastfeeding is so good for you.

Breastfeeding as a young mum
Young parents Melissa and Andy talk about why they’ve chosen to breastfeed.

A practical choice
Breast milk is free and always there for your baby. Young mum Martine tells you all the reasons.

Feelings about breastfeeding
Breastfeeding is something that only you can do for you.

What if I bottlefed before?
If you’ve bottlefed before and are expecting another baby, breastfeeding might be worth considering.

What’s so good about breastfeeding?
Mums talk about why breastfeeding is so good for their babies and for themselves, and how it makes them feel even closer to their babies.

Add to favourites
1. Antenatal visits - what's the point?
2. Antenatal visits - what can I do?
3. Diabetes in pregnancy - what's my risk?
4. Is my baby growing?
5. What should I be eating?
6. Tips for staying active
7. Can I drink?
8. Why I cut out alcohol
9. Can I smoke? The facts
10. How I stopped smoking
11. Taking street drugs - the facts
12. Immunisation - protecting me and my baby
13. How can I avoid infection?
14. Is my baby moving enough?
15. When my baby stopped moving - a mum's story
16. Vaginal bleeding or discharge - the facts
17. Itching - what does it mean?
18. Pre-eclampsia - the facts
19. New mum? What can go wrong? The facts
20. What if my waters break early?
21. After my baby is born - what's good to know
22. When a baby dies
23. My mental health matters
24. After my baby is born: the coming weeks and months
25. What is Our Chance?
Out of the Blue
Launched March 23rd
Our Award winning Beyond Baby Blue drama
7 longer documentaries
18 professional focused films
Already in Baby Buddy
Over 50 short films already live in Baby Buddy

Out of the blue
promoting mental health for parents and their children
Focus on pre-conception to three years

Inform and empower parents to improve outcomes

Aim to reduce health inequalities in the UK
The Duchess of Cambridge has shone a bright light on the importance of maternal mental health and the early years.

Through the Heads Together campaign and the press coverage that followed, Her Royal Highness has shone a bright light on the importance of maternal mental health.
Understanding your baby

An introduction to "Understanding Your Baby"
Parents and health professionals talk about ho...

What your baby is telling you
Health visitor Anne and psychologist Sue describe...

Cuddling and movement
Psychologist Sue explains why cuddles are so good for babies, and new mums Reb...

The "traffic light" system
Psychologist Sue explains the signs that your baby is ready to play and chat, and...

Recognising sleep states
Psychologist Sue and health visitor Anne explain how to recognise the different typ...

Recognising waking states
Health visitor Anne and psychologist Sue explain...

Understanding different cries
Psychologist Sue and family nurse Lis...

Prolonged crying
Health visitor Anne and psychologist Sue give some tips on h...

Bedtime routines
Psychologist Sue explains how to help your baby settle int...

Getting support
Psychologist Sue

Building your baby's brain

Following a toy
New mum Jess plays with two month old Micah, w...

Encouraging your baby's movements
New parents Rebecca and Paul p...

How simple things can interest a baby
New parents Rebecca and Paul e...

Tummy time
New parents Rebecca and Paul show how giving th...

Looking in the mirror
Young mum
Weekly MRI videos to support in utero bonding & healthy behaviors

18 wks

21 wks

26 wks

©iFIND. With thanks to Dr Mary Rutherford & the iFIND project team for giving Best Beginnings permission to use these videos in Baby Buddy.
Over 190,000 downloads to-date

c.1,200 a week

>200 collateral orders

>250,000 leaflets and posters distributed
Who is using Baby Buddy and what do they think?
Cumulative Baby Buddy Registrations across the UK upto 31/08/2018
Who has registered to use Baby Buddy in the UK 01/08/14 to 31/08/2018?

- Mum: 79% (151,561 users)
- Dad/partner: 6% (12,017 users)
- Health Professional: 4% (8,528 users)
- Other: 10% (19,826 users)
Age distribution of pregnant women and new mothers using Baby Buddy:

The Top Community Languages in the UK:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Baby Buddy %</th>
<th>ONS %</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 or Under</td>
<td>3.2%</td>
<td>7.6%</td>
</tr>
<tr>
<td>20-24</td>
<td>14.7%</td>
<td>15.2%</td>
</tr>
<tr>
<td>25-29</td>
<td>28.2%</td>
<td>27.8%</td>
</tr>
<tr>
<td>30-34</td>
<td>29.3%</td>
<td>31.6%</td>
</tr>
<tr>
<td>35-39</td>
<td>18.0%</td>
<td>16.8%</td>
</tr>
<tr>
<td>40-44</td>
<td>2.8%</td>
<td></td>
</tr>
<tr>
<td>45 and Over</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Key:
- Blue: % of live births in the UK*
- Green: % of pregnant women/new mothers using Baby Buddy
BESPOKE EMBEDDING


2. Co-creation & delivery of local/regional plans to make our resources ‘business as usual’ within local care-pathways (embedding).

3. Evaluate and disseminate findings about the impact of our resources to inform future developments.
BESPOKE EMBEDDING

Co-creation & delivery of local/regional plans to make our resources ‘business as usual’ within local care-pathways (embedding).
Heat Map of Nottingham before (2/4/2017) and after (31/08/2018) the SMT kick off meeting
NB: The percentage of mothers using Baby Buddy is calculated based on the birth cohort for a time period against downloads for that same time period. It fluctuates based on activity in different areas. This slide shows the data from the last complete quarter.
Level of usage of Baby Buddy amongst users nationally from August 2014 - 20 September 2018

- Extremely High users - 251+: 18.674% (36,001)
- Very High users - 101-250: 16.142% (31,119)
- High users - 46-100: 14.718% (28,374)
- Moderate users - 26-45: 11.353% (21,887)
- Low users - 16-25: 9.627% (18,560)
- Very low users - 5-15: 18.458% (35,584)
- Non users - less than 5: 11.028% (21,260)
I was very anxious when getting discharged as I wouldn't have a professional around to answer all the questions I would think of daily (I guess most first time mums have lots of questions before and once baby is here) I'm not a fan of searching the Internet for answers as you never know how true/accurate the information is, so I was glad to know the app is approved by professional. (First time pregnant 27)

I love the weekly update on how my baby is developing and what to expect - I find the information very reassuring when I'm worrying about what's normal and what isn't. This part of the app has also helped me with planning for my baby and knowing what I need to arrange in advance. (First time pregnant, 18)
Feedback from professionals about Baby Buddy

98% professionals feel more confident knowing it has been extensively vetted by a range of experts and is endorsed by a number of organisations

95% professionals agree that Baby Buddy contains evidence-based/best-practice based information

100% would recommend Baby Buddy to parents-to-be or new parents
Pregnant women & new mums completing pop-up in-app surveys to 12/10/17 report the following about Baby Buddy:

- Easy to use (n=10,266): >99%
- Easy to understand (n=10,214): >99%
- Helps me look after my mental health (n=2,507): 87%
- Helps me look after my physical health (n=2,535): 90%
- Helps me feel closer to my baby (n=3,092): 90%
- Helps me feel more confident caring for my baby (n=2,881): 98%
- Helps me get more out of my appointments (n=5,830): 86%
Next steps

- To embed Baby Buddy in more areas across the UK
- To create BabyBuddy2020 which will include content and functionality:
  - from pre-conception to the third birthday
  - for fathers and partners
  - to support relationships
  - to track and support mental health
  - that interoperates with NHS systems
- To work with other countries to create bespoke versions of Baby Buddy that deliver to their population needs and supports implementation of the Nurturing Care framework
NURTURING CARE
FOR EARLY CHILDHOOD DEVELOPMENT
A FRAMEWORK FOR HELPING CHILDREN SURVIVE AND THRIVE TO TRANSFORM HEALTH AND HUMAN POTENTIAL

Introduction

If we change the beginning of the story, we change the whole story.

The Global Strategy for Women’s, Children’s and Adolescents’ Health (2016-2030) is at the heart of the Sustainable Development Goals (SDGs). Its vision is a world in which every woman, child and adolescent realizes their rights to health and wellbeing—both physical and mental. This is a world in which they have social and economic opportunities and are able to participate fully in shaping prosperous and sustainable societies. And an essential part of this vision is that young children’s human rights guarantee them the conditions they need to survive and thrive.

We know why this is important. The period from pregnancy to age 3 is when children are most susceptible to environmental influences. That period lays the foundation for health, wellbeing, learning and productivity throughout a person’s whole life, and has an impact on the health and wellbeing of the next generation.

We know what threatens early childhood development. The biggest threats are extreme poverty, insecurity, gender inequities, violence, environmental toxins, and poor mental health. All of these things affect caregivers—by which we mean parents, families and other people who look after children. The threats reduce these caregivers’ capacity to protect, support and promote young children’s development.

We know what children need to develop to their full potential. They need nurturing care—the conditions that promote health, nutrition, safety, responsive and sensitive care giving and opportunities for early learning. Nurturing care is about children, their families and other caregivers, and the places where they interact.

We know what strengthens families and caregivers’ capacity to support young children’s development. An enabling environment is needed: policies, programmes and services that give families, parents and caregivers the knowledge and resources to provide nurturing care for young children. Community participation is a key part of this environment, which also needs to consider the diversity of children and families.

A framework for nurturing care

The Nurturing Care Framework provides a roadmap for action. It builds on state-of-the-art evidence about how early childhood development unfolds and how it can be improved by policies and interventions. It outlines:

- why efforts to improve health, wellbeing and human capital must begin in the earliest years, from pregnancy to age 3;
- the major threats to early childhood development;
- Nurturing care refers to conditions created by public policies, programmes and services. These conditions enable communities and caregivers to ensure children’s good health and nutrition, and protect them from threats. Nurturing care also means giving young children opportunities for early learning, through interactions that are responsive and emotionally supportive.
Together we can making a difference for future generations

#PowerOfCollaboration

Alison@bestbeginnings.org.uk
The following slides are an extract from a recent Behaviour Change Conference where there was a Symposium on Baby Buddy.
Baby Buddy: reducing health inequalities through digital parenting support

Chair: Dr Ann Hoskins @HoskinsAnn
Discussant: Prof. Mitch Blair @blair_mitch Imperial College London
Alison Baum OBE @AlisonBaum Best Beginnings
Dr Adrienne Gordon @AdrienneOz University of Sydney
Dr Sam Ginja, representing the BaBBLeS research team
Dr Nicola Crossland, University of Central Lancashire
Dr Nicos Middleton, Cyprus University of Technology

Panel Discussion

CBC Conference 2018 - Behaviour Change for Health: Digital and Beyond
Parallel Session 6, 11.45am-12.40pm Symposium

@BestBeginnings @CyUniTech @imperialcollege @UniofNewcastle @UCLan @Sydney_Uni @BabyBuddyApp
Applying the Behaviour Change Wheel: insights into the development of the Breastfeeding Component of the Baby Buddy App

Dr Adrienne Gordon, Loretta Musgrave, Prof Caroline Homer
The University of Sydney
@AdrienneOz

Baby Buddy Symposium: reducing health inequalities through digital parenting support
CBC Conference 2018 - Behaviour Change for Health: Digital and Beyond

@BestBeginnings @CyUniTech @imperialcollege @UniofNewcastle @UCLan @Sydney_Uni @BabyBuddyApp
<table>
<thead>
<tr>
<th>DBCI Item</th>
<th>Addressed</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals</td>
<td>✓</td>
<td>To inform and empower women of all socioeconomic backgrounds to breastfeed for the first 6 months.</td>
</tr>
<tr>
<td>Opportunities</td>
<td>✓</td>
<td>Bump to Breastfeeding Resources, Key need secondary to UK data, Smartphone use, Filmmaking, Big Lottery funding</td>
</tr>
<tr>
<td>Constraints</td>
<td>✓</td>
<td>Money, Time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skills in tech – partnership with app developers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Staff – partnership with academic institutions for evaluation</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>✓</td>
<td>Women, families, health professionals, colleges, health service management, NHS</td>
</tr>
<tr>
<td>Collaborators</td>
<td>✓</td>
<td>Universities, app developers, other charities and pregnancy support organisations</td>
</tr>
<tr>
<td>Risks</td>
<td>✓</td>
<td>Projected cost analysis, sustainability plan, staffing support</td>
</tr>
<tr>
<td>DCBI Item</td>
<td>Addressed</td>
<td>Detail</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Concept</td>
<td>✓</td>
<td>Literature review, qualitative and quantitative needs assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barriers and enablers</td>
</tr>
<tr>
<td>Knowledge</td>
<td>✓</td>
<td>Market research, Literature and policy review, review of existing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>interventions, computer science of user engagement</td>
</tr>
<tr>
<td>Development</td>
<td>✓</td>
<td>Person based approach’ for look, feel and functionality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Extensive qualitative research, co-creation and stakeholder input</td>
</tr>
<tr>
<td>Testing</td>
<td>✓</td>
<td>Focus groups, interviews, surveys, observation of use, in-app data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>pre/post embedding</td>
</tr>
<tr>
<td>Implementation</td>
<td>✓</td>
<td>Tested for usability and functionality pre implementation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ongoing evaluation post implementation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Iterative process, sustainability, operating systems, servers</td>
</tr>
<tr>
<td>Promotion</td>
<td>✓</td>
<td>External advisory group, PR team</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Endorsed by key agencies, eg NHS, Royal Colleges</td>
</tr>
<tr>
<td><strong>APPEASE Criteria</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Acceptability</strong></td>
<td>✓</td>
<td>Users, Implementers, Funders</td>
</tr>
<tr>
<td><strong>Practicability</strong></td>
<td>✓</td>
<td>High reach, scalable, not limited by geography</td>
</tr>
<tr>
<td><strong>Effectiveness</strong></td>
<td>✓</td>
<td>Academic Evaluations positive</td>
</tr>
<tr>
<td><strong>Affordability</strong></td>
<td>✓</td>
<td>Free for end-user</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>✓</td>
<td>Evidence-based, best practice, health literacy level age 11</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>✓</td>
<td>Proportionate universalism</td>
</tr>
<tr>
<td>Capability</td>
<td>Physical capability</td>
<td>Psychological capacity</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>1. Knowledge of how to attach and position the baby</td>
<td>1. A lack of knowledge about the benefits of breastfeeding</td>
</tr>
<tr>
<td></td>
<td>2. Physical capability and skills to attach and position</td>
<td>2. Belief in ability to produce required amount of breast milk</td>
</tr>
<tr>
<td></td>
<td>the baby</td>
<td>3. Beliefs about the consequences of not breastfeeding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Reflective motivation</th>
<th>Automatic motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Needing help with breastfeeding means there is a</td>
<td>1. Fear of failing at breastfeeds means offer bottle instead</td>
</tr>
<tr>
<td></td>
<td>problem</td>
<td>2. Fear of being a bad mother</td>
</tr>
<tr>
<td></td>
<td>2. Disappointment with self if unable to breastfeed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. I don't need help - unrealistic optimism</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Physical opportunity</th>
<th>Social opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Perception that breastfeeding is difficult due to the</td>
<td>2. Provision of breastfeeding friendly social spaces</td>
</tr>
<tr>
<td></td>
<td>unpredicatable nature of demand feeding</td>
<td></td>
</tr>
</tbody>
</table>
The Australian Academics Concluded:

Development of the breastfeeding component of Baby Buddy follows the principles on development of a DBCI and maps well to the BCW.

Using the structured process highlights areas for future developments.

Evaluation of health outcomes will continue to inform Baby Buddy.

Ongoing input from stakeholders, key to relevance and sustainability.
Together we can make a difference for future generations

#PowerOfCollaboration

Alison@bestbeginnings.org.uk