

Institution: University of Aberdeen
Unit of Assessment: 2 - Public Health, Health Services and Primary Care
Title of case study: Influencing national and international breastfeeding care through the generation of high quality evidence
<p>1. Summary of the impact</p> <p>University of Aberdeen research has directly influenced worldwide guidance for breastfeeding. A programme of research led by University researchers set out to develop, design and evaluate interventions to improve breastfeeding rates. Findings from the research directly led to a change to UNICEF guidance on how to promote breastfeeding care. Hospitals can apply to be UNICEF “Baby Friendly” accredited if they can demonstrate implementation of the UNICEF guidance. The National Institute for Health and Clinical Excellence has also indicated that all UK hospitals must follow the UNICEF guidance. The research has also directly impacted on the work of the Baby Café Charitable Trust -a charity which runs accredited drop-in centres to promote breastfeeding across in the UK and internationally - with the findings from the Aberdeen research programme directly influencing the Baby Café “toolkit”: the “rule-book” by which all Baby Café drop-in centres worldwide are run.</p> <p>The claimed impact, as defined by REF guidance, is therefore on <i>policy and services; practitioners and professional services; society and economically.</i></p>
<p>2. Underpinning research</p> <p>Breastfeeding is known to provide considerable health benefits for both mother and baby, with reduced risk of infections in babies and of breast and ovarian cancer in mothers. The World Health Organization recommends exclusive breastfeeding for the first 6 months of life. However breastfeeding rates in Scotland and the rest of the UK are amongst the lowest in the developed world, with only around 40% of babies receiving any breast milk at 6-8 weeks. Recognising the importance of addressing this significant health need, researchers in the University of Aberdeen – led by Pat Hoddinott, then Senior Lecturer in Primary Care at the University – developed an extensive programme of research into the barriers and facilitators to breastfeeding as well as a rigorous evaluation of interventions to improve breast feeding rates. This research programme included three substantive elements:</p> <ul style="list-style-type: none"> • <i>The evaluation of peer-support groups to promote breastfeeding in rural areas with below average rates of breastfeeding</i> [1,2]. This study evaluated the effectiveness of peer support for new mothers. Peer support was provided through midwife/health visitor facilitated groups where actively breastfeeding mothers supported or “coached” other new mothers to breastfeed. One-to-one coaching could also be provided. The study, which followed the feeding outcomes of around 600 babies, showed that breastfeeding rates at two weeks in the intervention area rose significantly by 34.3% to 41.1%. Breastfeeding rates increased at all time points until 8 months. Groups were reported to be more popular than one-to-one coaching. • <i>A large-scale, pan-Scotland evaluation of a policy to routinely establish breastfeeding groups for new mothers</i> [3,4]. Insights from the peer-support study above, which showed that peer support groups looked to be effective in rural areas, led to the development a large-scale, pan-Scotland evaluation of a policy to routinely establish breastfeeding groups for new mothers. This large scale cluster randomised trial – called the “BIG” (Breastfeeding in Groups) Trial - involved primary care organisations across Scotland being randomised to either set up new breastfeeding support groups or to not change their existing breastfeeding support provision. This trial, which followed more than 18,000 babies, showed no significant change in breastfeeding rates at 8 weeks after birth. In-depth qualitative data, collected while the trial was ongoing, allowed a model to be developed which highlighted the circumstances under which peer support groups worked best - strong leadership, evidence of multidisciplinary working etc. The report of this study was nominated for the Royal College General

Impact case study (REF3b)

Practitioners Research Paper of the Year Award.

- ***In-depth qualitative investigation of factors to improve breastfeeding in disadvantaged area*** [5]. Following the publication of the BIG trial, NHS Health Scotland commissioned the University of Aberdeen group to design and undertake an in-depth interview study with families from more disadvantaged areas. The aim was to inform the design of future interventions to improve breastfeeding in this population, not particularly likely to breastfeed. This rigorous qualitative study, following families over time, showed a need to move away from “breastfeeding-centred” care towards a mother, baby and family centred approach.

Led by Pat Hoddinott, the University of Aberdeen team also included:

- Dave Godden (Director, Centre for Rural Health, University of Aberdeen),
- Jane Britten (Research Fellow, Public Health Nutrition Group, University of Aberdeen),
- Jill Mollison (Senior Lecturer, Department of Public Health, University of Aberdeen),
- Amanda Lee (Reader, Department of Primary Care, University of Aberdeen),
- Gordon Prescott (Senior Lecturer, Department of Public Health, University of Aberdeen); and
- Anne Ludbrook (Senior Research Fellow, Health Economics Research Unit, University of Aberdeen)

3. References to the research

Research outputs:

- [1] Hoddinott P, Chalmers M, Pill R. One-to-one or group based peer support for breastfeeding? Women’s perceptions of a breastfeeding peer coaching intervention. *Birth*. 2006;33(2):139-146. (cited 26 times, Google Scholar at 12/8/13)
- [2] Hoddinott P, Lee AJ, Pill R. Effectiveness of a breastfeeding peer coaching intervention on breastfeeding rates in rural Scotland. *Birth*. 2006;33(1):27-36. (cited 24 times, Google Scholar at 12/8/13)
These two papers describe the peer-support intervention study in rural areas which concluded that group support for breastfeeding was likely to be more acceptable to women than individual coaching. This study was designed and led by Hoddinott from the University of Aberdeen. Lee is also from the University of Aberdeen and led on the statistical analysis.
- [3] Hoddinott P, Britten J, Prescott G, Tappin D, Ludbrook A, Godden D. Effectiveness of a policy to provide breastfeeding groups (BIG) for pregnant and breastfeeding mothers in primary care. *Brit Med J* 2009;338:a3026. (cited 34 times, Google Scholar at 12/8/13)
This is the report of the breastfeeding groups trial (the BIG trial), published in the British Medical Journal. It was the first and largest cluster randomised trial in the field and was designed and led from the University of Aberdeen (Hoddinott, Prescott, Ludbrook and Godden were all University of Aberdeen researchers).
- [4] Hoddinott P, Britten J, Pill R. Why do interventions work in some places and not others: a breastfeeding support group trial. *Social Science and Medicine*. 2010;70(5):769-778. (cited 13 times, Google Scholar at 12/8/13)
This paper reports the qualitative process evaluation undertaken within the BIG trial which explained why outcomes were favourable in some locations but others weren’t. This was led by Hoddinott from the University of Aberdeen.
- [5] Hoddinott P, Craig L, Britten J, McInnes R. A serial qualitative study of infant feeding experiences: idealism meets realism. *BMJ Open* 2012;2:e000504. (cited 18 times, Google Scholar at 12/8/13)
This is the report of the serial qualitative interview study with families recruited from more disadvantaged areas. It showed that the need to move away from “breastfeeding-centred” care towards a mother, baby and family centred approach. The study was led and designed by Hoddinott with input from Craig from the University’s Public Health Nutrition Group.

Impact case study (REF3b)

Research Grants:

All the research grants supporting these projects were led from the University of Aberdeen with Hoddinott as Chief Investigator. All University of Aberdeen grantholders are identified in bold.

- **Hoddinott P, Britten J, Mollison J, Ludbrook A**, McInnes R, Tappin D, **Godden D**. The BIG (**B**reastfeeding in **G**roups) trial: a randomised controlled trial to evaluate the clinical and cost-effectiveness of breastfeeding peer support groups in improving breastfeeding initiation, duration and satisfaction. Chief Scientist's Office of the Scottish Government Health Directorate. Ref: CZH/4/156: final report graded excellent. £209,603. 01/10/04 – 30/09/07.
- **Hoddinott P**. How can breastfeeding initiation, duration and maternal satisfaction with breastfeeding experience be improved in Scotland? Chief Scientist's Office of the Scottish Government Health Directorate. Primary Care Research Career Award. CZP/4/4. £294,225. 01/10/03 – 30/09/08.
- **Hoddinott P**. An action research project to implement and evaluate a breastfeeding coaching project in Banff and Buchan. Chief Scientist's Office of the Scottish Government Health Directorate. Research Practice Scheme. £46,500. 01/10/00 – 30/09/03.
- **Hoddinott P, Craig L**, McInnes R. A prospective study exploring the early infant feeding experiences of parents and their significant others during the first 6 months of life. NHS Health Scotland Research Grant. Ref: RE031. £95,501. 01/03/09–31/07/10.

All research outputs and research grants underwent rigorous independent external peer review.

4. Details of the impact

This University of Aberdeen research programme has had direct impact on breastfeeding care worldwide.

In 1992 the children's charity UNICEF and the World Health Organization (WHO) launched their worldwide *Baby Friendly Hospital Initiative* [a]. The *Initiative* provided a framework for the implementation of best practice by hospitals, other health-care facilities and higher education institutions, with the aim of ensuring that all parents make informed decisions about feeding their babies. Until 2012, best practice was represented by UNICEF's evidence-based "*Ten Steps to Successful Breastfeeding*". New standards were introduced in December 2012 which adopt a more mother and parent centred approach. Hospitals can apply to be a UNICEF "*Baby Friendly*" accredited hospital if they can show they are implementing UNICEF guidance. Research has shown that implementation of the *Baby Friendly Hospital Initiative* has led to increases in breastfeeding rates and subsequent child health.

The results of the BIG trial directly influenced a change to Step 10 of the UNICEF UK's Ten Step guidance. The 10 steps were the standard guidance until December 2012, when new standards incorporating, updating and expanding the 10 steps were published. Prior to the BIG trial results being published, Step 10 read "**Step 10: Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic.**" with the expectation that hospitals routinely promote the establishment of breast feeding support groups. Following publication of the BIG trial in 2009 which showed no evidence that these peer-support groups improved breastfeeding rates, Step 10 was reworded, after consultation with the trial team, to: "**Step 10 – Identify sources of national and local support for breastfeeding and ensure that mothers know how to access these prior to discharge from hospital**" thus removing the expectation that hospitals should be routinely establishing these groups [b]. Clearly this results in savings to national health services, as these groups are no longer being routinely set up.

In the UK, the *Baby Friendly Initiative* also accredits maternity and community facilities that adopt the UNICEF internationally recognised standards. Hospitals undergo a structured assessment to attain the award and achieve "Baby Friendly" accreditation if successful. The National Institute of Health and Clinical Excellence (NICE) has, through its guidance on standards of postnatal care in the UK, recommended that the *Baby Friendly Accreditation* be the minimum standard for the care of all mothers and babies [c]. Thus this research from the University of Aberdeen has directly influenced the care of all new mothers and babies across the UK.

In November 2011, the UNICEF UK Baby Friendly quality standards were further revised both in the language used and their content (to reflect more recent changes in evidence). Again, this revision drew directly on the findings of this University of Aberdeen programme of research (in particular, the in-depth qualitative study of disadvantaged families), recommending a move away from a breastfeeding-centred towards a more realistic woman, baby and family centred approach to feeding care [d]. In particular, Standard 3 recommends a more mother and parent-centred approach to discussing infant feeding antenatally, and references Aberdeen's work as supporting evidence.

The Aberdeen research on coaching has also been integral to the policies developed by the Baby Café Charitable Trust. The Baby Café Charitable Trust is an independent charity dedicated to providing free, top-quality support to breastfeeding mothers and runs a network of drop-in centres in the UK and worldwide. There are currently 111 Baby Café centres in the UK and a further 27 overseas (source: babycafe.org). Baby Café drop-ins are run by health professionals such as midwives, health visitors, or lactation consultants and they also run so-called "Baby Café Local" drop-ins which are run by healthcare practitioners (e.g. maternity support worker) or breastfeeding counsellors from voluntary breastfeeding organisations. Help is available on all aspects of breastfeeding. Anyone wishing to set up a Baby Café drop-in centre must apply to be licensed by the Charitable Trust and agree to run their drop-in centre according to pre-specified procedures. These procedures are outlined in the Baby Café "toolkit". The Baby Café Charitable Trust have sought to ensure that their "toolkit" is evidence-based and have drawn on research to inform their best practice. They explicitly reference the findings from the coaching intervention and the BIG trial in their toolkit as providing evidence to inform their procedures [e].

The claimed impact, as defined by REF guidance, is therefore on *policy and services; practitioners and professional services; society and economically*.

5. Sources to corroborate the impact

[a] http://www.unicef.org/nutrition/index_24806.html

This is UNICEF's website which describes the Baby Friendly Hospital Initiative and the number of Baby Friendly accredited facilities there are worldwide.

[b] Entwistle FM. The evidence and rationale for the UNICEF Baby Friendly Initiative standards, UNICEF UK, 2013.

This document describes the latest version of the Baby Friendly Initiative standards and extensively references our research as underpinning evidence.

[c] NICE. Clinical Guidance (CG037): Postnatal Care. <http://www.nice.org.uk/cg037>

This is the current NICE guidance document which outlines the UNICEF Baby Friendly Initiative as the minimum standard for breastfeeding in the UK.

[d] <http://www.unicef.org.uk/BabyFriendly/News-and-Research/Research/Support-for-breastfeeding/Feeding-support-needs-to-be-more-woman-centred/>

This is UNICEF'S commentary on the serial qualitative study. UNICEF indicated that the research had raised important issues and they recognised that whilst their Baby Friendly Initiative had gone some way to addressing women-centredness, they required to promote this further. This led to the changes in Standard 3 in the newly issued (2012) Baby Friendly guidance.

[e] Pardoe C & Williams J. Baby Café Toolkit: all you need to know about running a Baby Café Drop in Centre. Baby Café Charitable Trust, 2011.

This toolkit, which is issued to all registered Baby Café licence holders, outlines the guidance and standards of care which must be followed under the Baby Café licence. It explicitly references the research on coaching and the process evaluation of the BIG trial as evidence informing its guidance and standards.