

Breastfeeding for longer – what works?

This summary paper gives an overview of key findings from a series of systematic reviews of studies of interventions relevant to the continuation of breastfeeding, together with recommendations for practice and policy. It is relevant to all those who work with women in pregnancy and with breastfeeding women; practitioners and policy makers in public health; and those in acute and community maternal and infant services. The full report will be available on the HDA website in late 2004. The next stage of this work is to develop detailed guidance for practice.

Introduction

Breastfeeding has a major role to play in public health. It promotes health and prevents disease in the short and long term for both infant and mother. Breastfeeding initiation rates in the UK are about the lowest in Europe, with early discontinuation among those who do start. Prolonged, exclusive breastfeeding that results in the greatest benefits is not widely practised in the UK. Initiation and continuation rates are lowest among families from lower socio-economic groups, contributing to inequalities in health and the perpetuation of the cycle of deprivation.

This paper summarises the findings of a series of reviews examining public health, public policy, clinical and educational interventions, focusing on practices and policies used with women from disadvantaged groups. Full details will be given in the final report (Renfrew et al., in preparation), which will be available from late 2004 on the HDA website.

This information will be of interest to pregnant women, new mothers, health and social care professionals, and lay advisers supporting women in their decision to start and continue breastfeeding. The evidence will be especially useful for heads of midwifery and nursing services, Sure Start managers, primary care trusts, policy makers and planners of community and hospital services,

strategic health authorities and other sectors working together to plan and provide effective support to breastfeeding mothers and their babies.

Methods

A systematic search for studies evaluating interventions related to breastfeeding duration was conducted in 13 relevant electronic databases and three journals were hand searched; 940 papers were pre-screened, and full data extraction was carried out on 138 papers. A total of 80 eligible studies including three reviews were finally included. Findings are summarised in four categories according to the strength of the evidence: those **likely to be effective** (and should be used in practice); those that **may be effective**; those that **may be ineffective**; and those that are **likely to be ineffective** (and should not be used in practice).

Recommendations for practice and policy

Forms of care/practices/policies that are likely to be effective/beneficial for extending breastfeeding duration

Postnatal hospital stay

- Skilled breastfeeding support, peer or professional, proactively offered to women who want to

breastfeed (Porteous et al., 2000; Dennis et al., 2002).

- Preventing the provision of discharge packs containing formula feeding information and samples (Bliss et al., 1997).
- Unrestricted feeding from birth onwards (Renfrew et al., 2000).
- Unrestricted mother-baby contact from birth onwards (Renfrew et al., 2000).
- Unrestricted skin-to-skin care from birth onwards (Renfrew et al., 2000).
- Avoiding supplementary fluids for babies unless medically indicated (Howard et al., 2003).
- Regular breast drainage/continued breastfeeding for mastitis (Renfrew et al., 2000).
- Antibiotics for infective mastitis (Renfrew et al., 2000).

Postnatal care in the community

- Skilled breastfeeding support, peer or professional, proactively offered to women who want to breastfeed (Porteous, 2000).

Ongoing care in the community

- Skilled breastfeeding support, peer or professional (Serafino-Cross and Donovan, 1992).

Forms of care/practices/policies that appear to be promising for extending the duration of breastfeeding, well grounded in theory, and with some research to substantiate

In pregnancy

- Group, interactive, culture-specific education sessions (Rossiter, 1994).
- Group education session on positioning and attachment (Duffy et al., 1997).
- Antenatal education individually tailored to the needs of low-income women (Brent et al., 1998).

Immediate postnatal care

- Basing prevention and treatment of sore nipples on principles of positioning and attachment (Henderson et al., 2001; Renfrew et al., 2000).
- Cabbage leaves/extract for treatment of engorgement (Roberts et al., 1995, 1998).
- Systemic antibiotics for infected nipples (Livingstone and Stringer, 1999).
- Not separating mothers and babies for treatment of jaundice (Renfrew et al., 2000).

Postnatal care in community

- Self-monitoring daily log for women from higher socio-economic groups (Pollard, 1998).
- Combination of supportive care, teaching breastfeeding technique, rest and reassurance for women with 'insufficient milk' (Renfrew et al., 2000).
- Division of the frenulum in infants with signs of congenital ankyloglossia and breastfeeding difficulties (Fitz-Desorgher, 2003; Ballard et al., 2002; Masaitis and Kaempf, 1996).

Wider social/political issues

- National policy of encouraging maternity units to adhere to the

UNICEF Baby Friendly Initiative (Britten and Broadfoot, 2002).

- Regionally/nationally determined targets with supporting activities, and/or penalties and/or incentives (Cattaneo and Buzzetti, 2001; Giovannini et al., 2003).

Multifaceted interventions (across time periods and types of interventions)

- Tailored antenatal education, combined with proactive postnatal support in hospital and community, and with breastfeeding education for staff (Fredrickson, 1995).
- Combining antenatal education with partner support, postnatal support and incentives for women in low-income groups (Sciacca et al., 1995).

Forms of care/policies that may be ineffective for extending the duration of breastfeeding (as shown by good but not conclusive evidence) and should not be used without further evidence of effectiveness

In pregnancy

- Self-help manual used alone (Coombs et al., 1998).
- Antenatal education by a paediatrician (Serwint, 1996).
- Providing materials produced by formula milk companies on infant feeding in early pregnancy (Howard et al., 2000).

Immediate postnatal care

- Separating mothers and babies for treatment of jaundice (Renfrew et al., 2000).

Postnatal care in the community

- Written educational materials used alone (Hauck and Dimmock, 1994).
- GP clinic visit at one week postpartum (Gunn et al., 1998).
- Single home visit by community nurse following early discharge (Gagnon, 2002).

- Dopamine antagonists for 'insufficient milk' (Renfrew et al., 2000).

Ongoing care in the community

- Dopamine antagonists for 'insufficient milk' (Renfrew et al., 2000).

Forms of care/practices/policies that are likely to be ineffective for breastfeeding duration and should be abandoned or not introduced

In pregnancy

- Conditioning nipples in pregnancy (Renfrew et al., 2000).
- Hoffman's exercises for inverted and non-protractile nipples in pregnancy (Renfrew et al., 2000).
- Breast shells for inverted and non-protractile nipples in pregnancy (Renfrew et al., 2000).

Immediate postnatal care

- Restricting the timing and/or frequency of breastfeeds (Renfrew et al., 2000).
- Restricting mother/baby contact from birth onwards (Renfrew et al., 2000).
- Routine use of supplementary fluids (Howard et al., 2003).
- Provision of discharge packs containing samples or information on formula feeding (Bliss et al., 1997).
- Topical agents for the prevention of nipple pain (Renfrew et al., 2000).
- Breast pumping before the establishment of breastfeeding in women at risk of delayed lactation (Chapman et al., 2001).

Multifaceted interventions

- Combined antenatal education and limited postnatal telephone support for high income women and women who intend to breastfeed (resources better spent elsewhere) (Rojjanasrirat, 2000).

Gaps in the evidence base

One of the main findings of this review is lack of evidence for disadvantaged groups, despite efforts to identify them. Only 17 of the 80 included studies (21%) examined the needs of women from disadvantaged groups. Ways of raising breastfeeding rates among groups where the rates are lowest remain to be further explored.

Although there are evidence gaps identified across all sections of this review, the gap is widest for clinical issues and public policy. Not only has clinical research not addressed women's key concerns and problems, but clinical care, by imposing unnecessary and ineffective routines, has actively interfered with the successful establishment of breastfeeding. There is an urgent need for a programme of research into clinical problems, including 'insufficient milk', sore nipples, engorgement and the breastfeeding needs of babies and mothers with particular health needs. There is very little research to inform any aspect of public policy.

Only 10 of the 80 studies (12.5%) were conducted in the UK. Implications for importing evidence from other country and healthcare settings should be noted.

Recommendations for future research

To address the evidence gap breastfeeding needs to become a priority for research funding bodies in the UK. The quality of research identified was not strong in any of the areas reviewed. Problems included flawed study designs and a lack of understanding of the topic area. Funding agencies should be aware of the pitfalls in this field.

- Studies are needed to test out the efficacy of interventions based on empirical as well as theoretically derived research.
- Future research should use appropriate designs and consider carefully the wide range of factors involved in breastfeeding.

- Much more information is needed about the content of interventions, the training required to implement them, the participants, and the settings in which they were used.
- Studies should examine the effectiveness of interventions among different disadvantaged groups.
- Research is needed to compare policy interventions across different countries, as well as research within healthcare systems.
- Changes in health service organisation are inevitable – these changes would be suitable for large-scale studies across many sites.
- To help inform the potential for interventions to make a difference in practice, breastfeeding outcomes, participants' views and cost effectiveness should be examined in future studies.

Conclusion

The extent of the work needed to change the current patterns of infant feeding should not be underestimated. These patterns have been developed over the past century and are now embedded in the thinking and behaviour of several generations of practitioners, and in society as a whole. A coordinated and well-supported programme is needed if real culture and practice change is to occur. To enable women to breastfeed, the following changes are needed:

- National level coordination of policy across health, social services, school education, employment, food, and environment
- Coordination of national with local policy so that departmental policy is funded, enabled and monitored at the level of, for example, PCTs, Sure Starts, and acute trusts, with a two-way flow of information to enable both a bottom-up and a top-down approach

- Ongoing monitoring of rates of variation in infant feeding, with agreed definitions and timing of follow-up, combined with socio-demographic data.

It will also require the wholehearted involvement and support of:

- Clinical professionals in community and hospital settings
- Community based workers including Sure Start staff
- Managers with responsibility for health and social services
- Those with responsibility for collecting health and health service related data
- Educators in the fields of health and social services
- Schoolteachers and those responsible for school curricula in primary and secondary schools
- Employers in large and small organisations
- Politicians and policy makers at local, regional and national levels
- Those with influence over public opinion
- Families and the public at large.

Further work – evidence into practice and policy

In 2004-05, as part of the work of the HDA Collaborating Centres for Maternal and Child Nutrition, the evidence summarised here will be developed in a number of ways.

First, consultation with practitioners from a range of disciplines and settings will support the development of detailed guidance for practice and policy. Second, a programme of work to support capacity building among practitioners working with childbearing women will be established, specifically aiming to help raise rates of breastfeeding initiation and duration in areas where breastfeeding rates are low.

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This paper is a summary of the HDA's forthcoming Evidence Briefing *The effectiveness of public health interventions to promote the duration of breastfeeding: systematic reviews of the evidence*.

Authors: M. J. Renfrew,* L. Dyson,* L. M. Wallace,** L. D'Souza,* F. McCormick* and H. Spiby*

*Mother and Infant Research Unit, University of Leeds
**Health Services Research Centre, Coventry University

Contact:

website: www.hda.nhs.uk
email: communications@hda-online.org.uk

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