

Breastfeeding: a vital part of the first 1001 Critical Days

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There is a welcome emphasis on the importance of the early months of life in “1001 Critical Days” manifestoⁱ and in Scotland’s “Social Justice Starts with Babies”ⁱⁱ These policy initiatives reflect the UK’s commitment to the UN *Convention on the Rights of the Child*:

- Article 3: “In all actions concerning children ... the best interests of the child shall be a primary consideration”
- Article 24, which calls for states to ensure that all parents are provided with education and support for breastfeeding.ⁱⁱⁱ

The UK breastfeeding organisations, across all sectors, work with parents in the most disadvantaged communities across the UK and understand how tough pregnancy, birth and the first 24 months can be. We know how much they want to become caring sensitive parents.

Children in disadvantaged communities are disproportionately more likely to suffer poor health outcomes as well as poor attachment and relationships as detailed in the 1001 Critical Days Manifesto. Breastfeeding has been shown to provide important protection in mitigating the worst effects of poverty, yet the most disadvantaged families too often face the highest barriers to breastfeeding.

Breastfeeding is a natural safety net against the worst effects of poverty....

Exclusive breastfeeding goes a long way towards cancelling out the health difference between being born into poverty or being born into affluence.

It is almost as if breastfeeding takes the infant out of poverty for those few vital months in order to give the child a fairer start in life and compensate for the injustices of the world into which it was born.

James P. Grant, past Executive Director of UNICEF)

Breastfeeding provides vital protection against a number of poor health outcomes for children and their mothers in developed countries such as the UK.^{ivvvi}

Surveys show that four out of five mothers in the UK want to breastfeed. However a large proportion (one in three) stop in the first 6 weeks and by far the majority of these women (four out of five) would rather have continued, but didn't receive the information or support that they needed.^{vii}

The impact of breastfeeding: the main themes of the 1001 Critical Days

Baby’s Brain Development for the best start in life: Breastfeeding in the critical early period of brain development appears to have a positive, long term impact on the organisation of the brain’s neural pathways.

Previous studies suggesting the importance of breastfeeding in promoting optimal brain and cognitive development were confirmed by MRI studies in 2013 showing significant differences in white matter and brain development between breastfed, partially breastfed, and formula fed babies and young children in “regions and pathways commonly associated with higher-order

cognition, such as executive functioning, planning, social-emotional functioning, and language (Grossmann and Johnson, 2007 and Johnson, 2003), domains in which breastfed infants were also found to have improved performance.” Differences were observed up to the age of two years.^{viii ix x}

The composition of breastmilk changes over time, providing the essential building blocks for the baby’s brain at each stage of development – first the exact long chain fatty acids required for brain cell growth, and later the phospholipids required for myelination.^{xi xii}

Stress: The hormones involved in breastfeeding in both mother and baby, in particular oxytocin, play an important role in mediating stress hormones such as cortisol in both.^{xiii}

Maternal mental health: breastfeeding reduces risk

Research indicates that mothers who were exclusively breastfeeding reported significantly more hours of sleep, better physical health, more energy, and lower rates of depression than mothers who were mixed- or formula-feeding.^{xiv}

When mothers are supported to breastfeed successfully, their risk of postnatal depression is reduced. However, when women who want to breastfeed are not successful, their risk of postnatal depression is doubled; this underlines the importance of universal access to skilled breastfeeding support in order for women to be successful in their infant feeding choices.^{xv}

Further research has found that among those mothers who stop breastfeeding, it is those who stopped because of unresolved breastfeeding difficulties who were at the highest risk of mental health issues, while those who stopped because of personal or social reasons were not.^{xvi}

Infant mental health: Breastfeeding protected infants from the harmful effects of maternal depression. Jones et al compared four groups of infants: infants of depressed mothers who were either breast or bottle-feeding, and infants of non-depressed mothers who were either breast or bottle-feeding. The infants of depressed bottle-feeding mothers had abnormal brain activation patterns, such as those found in previous studies, but the infants of depressed breastfeeding mothers were no different than those of non-depressed mothers.^{xvii}

Attachment: Breastfeeding helps mothers build a close and loving relationship with their baby; along with the physical closeness, oxytocin produced in mother and baby by breastfeeding promotes nurturing behavior.^{xviii xix}

Neglect: Breastfeeding can reduce the risk of maternal neglect.^{xx}

Parenting skills: This study found that those low-income mothers who breastfed for 6-12 months had the highest scores of any group on quality of parenting interactions at age five.^{xxi}

Cost/benefit analysis: Even a modest improvement in UK breastfeeding rates would yield significant cost savings.^{xxii}

Evaluations/ RCTs: The UK Infant Feeding Survey has provided 5 yearly detailed analysis of breastfeeding rates across the UK until 2010. Continued in depth data collection is essential.

Outreach and volunteer services to reach most vulnerable and isolated families: involve third sector, trained and accredited breastfeeding counsellors, breastfeeding mother support groups, and trained peer supporter programmes.^{xxiii xxiv}

Legislative support is still needed at every stage of breastfeeding: Conflict of interest and marketing of formula and bottlefeeding undermine women’s efforts to

breastfeed; the UK needs to fully implement the International Code of Marketing of Breast-Milk Substitutes and make the accompanying Guidance Notes enforceable in order to change social attitudes about breastfeeding.

Maternity protection and lack of protected breastfeeding breaks at work: the lowest paid are still the most vulnerable.

ⁱ <http://www.1001criticaldays.co.uk>

ⁱⁱ <http://www.wavetrust.org/sites/default/files/reports/BinB%20Coalition%201st%20Annual%20Report%20web%20version%202014.pdf>

ⁱⁱⁱ <http://www.ohchr.org/en/professionalinterest/pages/crc.aspx>

^{iv} Ip S, Chung M, Raman G, Chew P, Magula N, DeVine D, Trikalinos T, Lau J. **Breastfeeding and maternal and infant health outcomes in developed countries.** *Evid Rep Technol Assess (Full Rep)*. 2007 Apr;(153):1-186.

^v Renfrew M et al 2012. Preventing Disease and Saving Resources.

http://www.unicef.org.uk/Documents/Baby_Friendly/Research/Preventing_disease_saving_resources.pdf

^{vi} (Evidence has also demonstrated that a child from a low-income background who is breastfed is likely to have better health outcomes than a child from a more affluent background who is formula-fed (Wilson et al, 1998))?

^{vii} McAndrew F, Thompson J, Fellows L, Large A, Speed M, Renfrew MJ (2012) *Infant Feeding Survey 2010*, Health and Social Care Information Centre (<http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-relatedsurveys/infant-feeding-survey/infant-feeding-survey-2010>).

^{viii} Sean C.L. Deoni^{a,·}, Douglas C. Dean III^a, Irene Piryatinsky^{a, b}, Jonathan O'Muircheartaigh^{a, c}, Nicole Waskiewicz^a, Katie Lehman^a, Michelle Han^a, Holly Dirks^a Breastfeeding and early white matter development: A cross-sectional study *NeuroImage* Volume 82, 15 November 2013, Pages 77–86

^{ix} Deoni, S, DC, Piryatinsky I, O'Muircheartaigh, J et al. Breastfeeding and early white matter development: A cross-sectional study. *NeuroImage*, 2013

^x Minchin, M. 2015. *Milk Matters: Infant Feeding and Immune Disorder*.

^{xi} Harboar MG, Finn JP, Hall-Craggs. Myelination patterns on magnetic resonance of children with developmental delay. *Dev Med Child Neurol* 1990; 32:295-03

^{xii} Daly SEJ, Kent JC, Atwood CS, Warner BJ, et al. Breastmilk fat content increases with the degree of breast emptying. *Proceedings Nutrition Society of Australia*. 1991; 16:126

^{xiii} Uvnas Moberg, K. 2013. *The Hormone of Closeness: the role of oxytocin in relationships*. Pinter and Martin.

^{xiv} Kendall-Tackett, K. The Effect of Feeding Method on Sleep Duration, Maternal Well-being, and Postpartum Depression. *Clinical Lactation*, 2011, Vol. 2-2, 22-26 <http://www.clinicalactation.org/content/effect-feeding-method-sleep-duration-maternal-well-being-and-postpartum-depression>

^{xv} Borra, C., Iacovou, M. and Sevilla, A. "New Evidence on Breastfeeding and Postpartum Depression: The Importance of Understanding Women's Intentions". *Maternal and Child Health Journal: 20 Aug 2014*

^{xvi} Brown, A., Rance, J., Bennett, P. 'Understanding the relationship between breastfeeding and postnatal depression: the role of pain and physical difficulties', *Journal of Advanced Nursing* 2016; Volume 72, Issue 2: 273-282

^{xvii} Jones, N.A., McFall, B.A. and Diego, M.A. Patterns of brain electrical activity in infants of depressed mothers who breastfeed and bottle feed: The mediating role of infant temperament. *Biol Psychol* 2004; 67(1-2):103-24. <http://www.ncbi.nlm.nih.gov/pubmed/15130527>

^{xviii} Entwistle, F. *The evidence and rationale for the UNICEF UK Baby Friendly Initiative standards* (UNICEF Baby Friendly) http://www.unicef.org.uk/Documents/Baby_Friendly/Research/baby_friendly_evidence_rationale.pdf

^{xix} Uvnas Moberg, K. 2013. *The Hormone of Closeness: the role of oxytocin in relationships*. Pinter and Martin.

^{xx} Strathearn L, A. Mamun, J. Najman, M. O'Callaghan. Does breastfeeding protect against substantiated child abuse and neglect? A 15-year cohort study. *Pediatrics*. 2009 Feb;123(2):483-93. doi: 10.1542/peds.2007-3546 Accessed on <http://www.ncbi.nlm.nih.gov/pubmed/19171613>

^{xxi} Gutman LM, Brown J, Akerman R (2009) *Nurturing Parenting Capability*. The Early Years, Centre for Research on the Wider Benefits of Learning, The Institute of Education, London. <http://eprints.ioe.ac.uk/2051/1/Gutman2009Nurturing.pdf>

^{xxii} Renfrew et al 2013. *Preventing Disease and Saving Resources*. UNICEF Baby Friendly UK. <http://www.unicef.org.uk/BabyFriendly/Resources/Guidance-for-Health-Professionals/Writing-policies-and-guidelines/Preventing-disease-and-saving-resources/>

^{xxiii} An independent evaluation showed that in 26 out of 28 areas where Peer Counsellor Programmes were introduced there was an increase in breastfeeding initiation rates, anything from 2 to 32 percentage points, and many areas demonstrated an increase in breastfeeding duration (Dr Sue Battersby, *An Evaluation of La Leche League GB's Breastfeeding Peer Counsellor Programme*, 2007)

^{xxiv} Dyson L, Renfrew M, McFadden A, McCormick F, Herber Gt and Thomas J 2006. *Promotion of breastfeeding initiation and duration: Evidence into practice briefing*. NICE