



## RESEARCH SUMMARY

### **Does breastfeeding protect against substantiated child abuse and neglect? A 15 year cohort study**

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Maternal maltreatment of a child represents a fundamental breakdown of the child-mother relationship, with around 60% of substantiated cases of maltreatment in the USA being perpetrated by the mother. Early physical contact between mother and child helps stimulate and maintain maternal behaviour, which in turn can help protect against maltreatment perpetrated by the mother. Breastfeeding stimulates the release of the hormone oxytocin, reducing anxiety and enhancing mood, which can enhance maternal responsiveness. Increases in peripheral oxytocin levels during pregnancy are associated with increased maternal-foetal attachment. Breastfeeding can also lead to a reduction in negative mood, as well as breastfeeding mothers feeling less overall stress. Supporting breastfeeding and close mother-infant contact have also been shown to reduce rates of infant abandonment in developing countries, leading to a possible link between breastfeeding and reduced child neglect.

The study hypothesised that the absence of breastfeeding in a child's first six months of life may contribute to child maltreatment being perpetrated by the mother, independent of other factors. The authors looked at the factors that may limit or prevent such maltreatment, in order that intervention strategies for the mother could be formulated and long-term consequences for the children be prevented. The study was carried out over a period of 15-20 years, with mothers recruited between 1981 and 1984, in Brisbane, Australia. Almost 6000 patients were recruited and completed questionnaires at both ante-natal and post-natal stages. Government agency reports of child maltreatment were also collected in 2000. The authors looked at the duration of both partial and exclusive breastfeeding, with the longest category of time for breastfeeding being four or more months. The authors also included other factors such as binge drinking; maternal anxiety and depression; attitude to pregnancy, such as whether the pregnancy was planned; the amount of time per week the infant was cared for by someone other than the mother; maternal stimulation and teaching of the infant and the mother's care-giving attitude. With regard to the cases of child maltreatment, the episodes of maltreatment were divided in to categories of who the perpetrator was.

Between 2% and 4% of cases of substantiated maltreatment were recorded, with substantiated neglect (3.8%) being the most reported. More than one case of neglect or abuse by the mother was recorded for more than 60% of the maltreated children. Almost two-thirds of the cases of substantiated maltreatment were perpetrated by the mother, most frequently cases of neglect, and emotional and physical abuse, whereas most cases of sexual abuse were perpetrated by the father.

Most of the other factors which could affect rates of maltreatment studied by the authors showed a modest association with maltreatment, except the gender of the

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infant and attitudes towards stimulation and teaching of the infant. Similarly, all factors save infant gender were modestly associated with breastfeeding duration. An inverse relationship between breastfeeding and maltreatment perpetrated by the mother was shown. The incidence of maternally perpetrated maltreatment increased as the duration of breastfeeding decreased, with children who suffered no incidences of maltreatment being more likely to have been breastfed for more than four months. The odds for non-breastfed infants to be maltreated by their mothers were 4.8 times that of infants breastfed for four or more months. The odds for maternal neglect of non-breastfed infants were higher still, at 6.6 times that of breastfed infants. Other factors that were also associated with maternal maltreatment included unmarried status, low maternal education, smoking or binge-drinking during pregnancy and mother-infant separation six months after delivery.

Maternal neglect was associated with duration of breastfeeding, with the odds for non-breastfed infants being nearly four times higher than the odds for infants breastfed for four or more months. The likelihood of maternal neglect occurring increased as the duration of breastfeeding decreased, although there was no association of breastfeeding duration with non-maternally perpetrated neglect. Other variables associated with maternal neglect included young maternal age, low educational level and binge drinking during pregnancy.

The authors suggest that these results may show a protective role played by breastfeeding in preventing maternal neglect. This study was the first to confirm such data in Australia, where rates of maternal neglect are similar to those in the United States. Studies in animals such as sheep and rats have shown that the hormone oxytocin plays an important role in the onset of maternal behaviour and, in the case of sheep, results in selective bonding between ewes and lambs. In human trials oxytocin has also resulted in increased trust and accuracy in assessing the effects of emotions on facial features, whilst decreasing anxiety and fear-related brain responses. Therefore, there may be a physiological mechanism through which breastfeeding alters the pattern of mother-child bonding and potentially reduces the risk of child neglect.

The authors highlight several limitations of their work which may impact on the results, such as no distinction being made between exclusive breastfeeding and partial breastfeeding, i.e. supplementing with bottles of formula milk, or whether breast milk was expressed and given by another carer. It is also suggested that results may have been biased by the use of self-report measures and government child protection agency data.

According to the authors the study provides new evidence of breastfeeding possibly providing a protective effect against maternal neglect and maltreatment. Breastfeeding, they say, may help strengthen the relationship between mother and child. They believe this would best be accomplished by promoting education of parents and long-term marital stability and by also providing both social and economic support for mothers to be able to stay at home with their infants. These factors, they believe, may help increase the duration of breastfeeding and protect against maternally perpetrated neglect and abuse.

*Review by Dr Clare Cunningham.*