

Further data analysis of the EAT study

Area of research interest: [Food hypersensitivity](#)

Study duration: 2016-10-13

Project code: FS101178

Conducted by: Kings College, London

Background

The Enquiring About Tolerance (EAT) study was commissioned to investigate the best time to introduce allergenic foods into the infant diet in order to minimise the risk of development of allergic disease later in life, including food allergy.

Further analyses of the EAT study dataset has now been commissioned to add to existing knowledge in two particular areas. The first is investigating whether the introduction of solids has an impact on sleep behavior of infants. The second area is investigating further the factors that impacted on the ability of the 'Early Introduction Group' of the EAT study to follow the early food introduction regime.

The results from this study will add to the evidence base for effective communication with families on the risks and benefits of solid food introduction and for informing communication and policy strategies implementing infant feeding advice and guidelines.

Research approach

The EAT study recruited 1303 mothers and their infants onto the study from November 2009-July 2012. All mothers on the study were to breastfeed exclusively until their infants were 3 months of age at which point they were randomly split into two groups.

One group (the Standard Introduction Group) followed standard UK government advice and were asked to exclusively breastfeed for around 6 months, after which introduction of allergenic foods was a matter of parental choice.

The second group (the Early Introduction Group) was asked to introduce 6 allergenic foods from the age of 3 months alongside continued breastfeeding with the help of a dietician and support from the study team.

It was important that breast milk remained an important part of all infants' diet during the first year of life, so all mothers in the study were encouraged to breast feed for at least six months regardless of study group.

All infants were closely monitored until 3 years of age when the impact of the intervention on food allergy and other secondary allergy endpoints (such as eczema and asthma) were assessed and compared between the two study groups.

The first key objective for these further analyses was to analyse data surrounding infants' duration of sleep, amount of time to settle to sleep and frequency of night waking's. There is currently the

suggestion that introduction of solid foods into an infants' diet has no impact on sleep duration juxtaposed with the historical belief that introducing solids early helps infants to sleep better. The unique design of the EAT Study has allowed these conflicting beliefs to be studied.

The second research objective is to study the adherence to the EAT Study protocol. Only 42.8% of families were able to follow the early introduction protocol, as opposed to 92.9% who were able to follow the standard introduction protocol. Further investigation of the factors that impacted on adherence of the 'Early Introduction Group' to the study regime is required and would help better understanding of issues faced if this feeding pattern was followed.

Results

The first area of further investigation found that following the early introduction of solids, infants in the Early Intervention Group (EIG) slept significantly longer and woke significantly less frequently than infants in the Standard Introduction Group (SIG).

Differences between the two groups peaked at six months, with the early introduction group sleeping for a quarter of an hour (16.6) minutes longer per night (almost 2 hours longer per week) and their night waking frequency decreased from just over twice per night to 1.74 times, which is a 13% decrease on average.

Most clinically important, very serious sleep problems, which were significantly associated with maternal quality of life, were reported significantly less frequently in the EIG than in the SIG.

Publications

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Research report

[Association of early introduction of solids with infant sleep. A secondary analysis of a randomized clinical trial](#)