HABEAT project
Determining factors and critical periods in food Habit formation and breaking in Early childhood: a multidisciplinary approach

This European project was launched on January 2010, for a duration of 4 years, and involves 11 partners. HabEat will receive 2.9 million Euros in funding, from the 7th European Union Framework Programme under the “Food, Agriculture and Fisheries, Biotechnology” priority.

Some food habits and eating patterns develop early in infancy, when there is no real evidence of a conscious choice and they are influenced by the child's environment and, possibly, sensorial perception. Research is needed in order to understand the process of formation of food habits and eating patterns and to identify the key determinants of behavioural changes (food habit-breaking).

HabEat combines two complementary approaches:

- On one hand, epidemiological work will exploit existing data from several cohorts from 4 European countries: in France, United Kingdom, Portugal and Greece. The work will enable the identification of critical periods and critical factors.

- On the other hand, experimental part will be divided in two sections. The first one will focus mainly on identifying the key mechanisms of learning and will essentially concern children from the age of six months and up to three years. The second one will aim at studying, beyond three years and up to five years, new strategies for breaking habits, i.e. for changing from poor to healthy habits.
The objective of our work is to show which parental and child attitudes towards food could have an influence on children's food habits. The first step of our project is to identify tools used to characterize these attitudes in other studies. In another step, we will look at the link between attitudes towards food in infancy (e.g. to be always hungry, to refuse most new foods) or parental practices towards child's eating (e.g. to breastfeed during a long period, to propose foods other than milk early in life, to be careful that the child did not eat too much/little food) and food habits later in childhood, especially fruit and vegetable intake. For that purpose, we will analyze data from four European cohorts (Europrevall in Greece, Generation XXI in Portugal, ALSPAC in the United-Kingdom and Eden in France), in which between 1,000 to 14,000 children or their parents (when children are too young to answer alone) were asked to describe regularly their feeding occasions and their relation to food.

Vegetables play a crucial role in our diets because of their health related properties; they are extremely nutrient rich, low in energy and might contribute to preventing the onset of several chronic diseases. Current research shows that many individuals are not consuming enough vegetables in their everyday diets and this is the case for both adults and children. Children quite often do not like to eat vegetables and this may be due to taste, texture or appearance. Interestingly most young infants are willing to taste and eat vegetables; however, this willingness decreases as the child ages. Workpackage (WP) 2 is aimed at investigating this issue. WP 2.1 is led by Dr Lucy Cooke (University College London), Dr Cooke and her team are specifically investigating vegetable intake in newly weaned infants to determine whether exposure to a wide variety of vegetables early in life will prevent the observed decline in liking and intake at a later age. Workpackage 2.2 is led by Professor Marion Hetherington (University of Leeds). Together with colleagues in Dijon, Copenhagen and Wageningen we are examining specific learning mechanisms involved in the development of vegetable liking and acceptance in infants and young children aged 6m to 36m. Over the coming year, essential pilot studies will be undertaken in order to finalize experimental designs. In addition ethical approval for the studies will be obtained and families and local nurseries will also be recruited to take part in the investigations.
By the age of 3 years old, some ‘poor’ food habits could have been well established. These ‘poor’ food habits can concern eating beyond needs and a low variety of the diet, especially in terms of fruits and vegetables. Task 3.1, led by Dr Sophie Nicklaus (INRA Dijon), will aim on teaching children to focus on their internal cues of hunger and fullness in order to improve their self-regulation of food intake. Tasks 3.2 and 3.3 will focus on how to change rejection of healthy foods into acceptance. Task 3.2, led by Dr Per Møller (Københavns Universitet), will study how variation in sensory characteristics such as texture and flavor and repeated exposure can induce acceptance of originally disliked foods. Task 3.3, led by Dr Mojet, will explore if social learning techniques such as imitation of a teacher or an idol, freedom of choice of vegetables, and experiencing food preparation and eating self-prepared food induces increased liking and intake of fruits and vegetables. Over the coming year, experimental design will be finalized. In addition ethical approval for the studies will be obtained and schools and day care centres will be contacted to take part in the investigations.

By 2013, the results from the HabEat project, via stakeholder interaction and consultation (notably via the Stakeholder Advisory Board), will lead to recommendations in parental practices for feeding infants and children. These recommendations will be addressed notably to early childhood professionals, paediatricians, political decision-makers in charge of defining nutritional policies but also to baby food industry. The scientific community will be informed of the main scientific achievements via publications in international scientific journals and oral and poster communications at international conferences, including a symposium at the end of the project. The general public (in particular parents) will be informed through the project website, eNewsletters (twice a year), articles in newspapers and non-scientific journals where appropriate.

Website: www.habeat.eu

The work of the 4 workpackages (WPs) will be led, managed and administrated by WP5 Project Management. It will provide the strategic, organizational, financial and contractual framework for all WPs to operate effectively.
HabEat brings together 11 European partners from 6 European countries

INRA – Institut National de la Recherche Agronomique, France
DLO-FBR - Stichting Dienst Landbouwkundig Onderzoek, the Netherlands
INSERM - Institut National de la Santé et de la Recherche Médicale, France
ULEeeds - The University of Leeds, United Kingdom
WUR - Wageningen Universiteit, the Netherlands
UCPH - Københavns Universitet, Denmark
UCL - University College London, United Kingdom
FMUP - Faculdade de Medicina da Universidade do Porto, Portugal
HUA - Harokopio University, Greece
UNIBRIS - University of Bristol, United Kingdom
IT - INRA Transfert SA, France

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