Parents Report Better Health-Related Quality of Life for Their Food-Allergic Children Than Children Themselves


PURPOSE OF THE STUDY. To analyze health-related quality of life (HRQoL) in food-allergic children, compared with parental-proxy reports of the child’s HRQoL.

STUDY POPULATION. Dutch children aged 8 to 12 years with at least 1 physician-diagnosed food allergy and their parents were recruited from a Dutch pediatric allergy clinic over a 2-year period.

METHODS. Children and their parents completed 2 forms, the Food Allergy Quality of Life Questionnaire (FAQLQ)—Child Form and FAQLQ—Parent Form. Both questionnaires address risk of accidental exposure, emotional impact, allergen avoidance, and dietary restriction. These are both scored on a 7-point scale, with 7 being the maximal impact on quality of life.

RESULTS. Seventy-four child-parent pairs were analyzed: 73% of children had peanut/tree nut allergy, and 84% of children had a history of anaphylaxis. Ninety-one percent of the parents surveyed were mothers. The total FAQLQ—Child Form score was significantly higher than the total FAQLQ—Parent Form score, 3.74 vs 2.68 (P < .001). This indicates a more severe impact on HRQoL for children compared with their parental perceptions. Additionally, the mean difference between child-parent-reported HRQoL was higher in younger children (8–10 years) than older children (11–12 years).

CONCLUSIONS. Children reported a significantly greater impact of their food allergies on quality of life compared with their parental-proxy reports. This demonstrates a difference in perspective between children and their parents, and it is important to recognize this potential discordance in the clinical setting.

REVIEWER COMMENTS. This study represents the first published comparison of child and parent-proxy reported HRQoL by using validated measures. There may be cultural differences influencing quality-of-life perceptions in the Netherlands that are not similar in other countries. It would be interesting, however, to conduct large-scale, multicenter, multinational studies.

The Ability of Adults and Children to Visually Identify Peanuts and Tree Nuts


PURPOSE OF THE STUDY. To determine the ability of children and adults to visually identify and differentiate peanuts and tree nuts by displaying the nuts in commonly purchased and used forms.

STUDY POPULATION. One thousand one hundred five self-selected adults and children (456 children aged 6–18 years) visiting an interactive children’s science center.

METHODS. Participants were recruited to a nut display consisting of 19 numbered compartments displaying peanuts and 9 tree nuts in commonly purchased and used forms. Data on demographics, personal or family history of peanut or nut allergy, current or previous roles in child care, teaching, food preparation or serving, or patient care were collected. Participants were then asked to identify each nut in the display.

RESULTS. There was a wide distribution of correct answers. The mean number of correct answers was 8.4 of 19; the responses of adults (11.1) were better than those of children (4.6). The most common identifications included peanut in the shell 94.7% of the time, peanuts out of the shell 80.5% of the time, and cashews 76.7% of the time. The least common was hazelnut at 16.1%. Twenty-seven (2.4%) self-reported peanut or tree nut allergy; no differences in correct answers were seen between allergic and nonallergic participants or parents. Twenty of the 27 were able to name the nut to which they were allergic, but only 50% correctly identified all forms of those nuts. Fifteen of 20 parents of children with allergies were able to name the nut to which their children were allergic and 73.7% correctly identified the nuts. Those involved in some aspect of child care or health care did significantly better than those who were not, but those in the food...
industry did not do any better than those who were not in that industry.

CONCLUSIONS. Both adults and children are not reliable at visually identifying most nuts.

REVIEWER COMMENTS. It is obvious from this and other studies that simply telling patients to avoid peanuts or tree nuts, or specific tree nuts, is not sufficient. Some education using pictures of nuts would appear to be minimal requirements. As the authors point out, this study was done in 1 city at 1 time and may not be generalizable to other cities, although there is nothing unique about the city or the setting that would suggest it would not apply to other areas. Furthermore, the study probably overestimated the abilities of the general population due to a selection bias among participants who thought they would do well. Perhaps those who did not think they were able to identify the nuts did not participate.

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Gene–Vitamin D Interactions on Food Sensitization: A Prospective Birth Cohort Study

PURPOSE OF THE STUDY. To explore the relationship of vitamin D deficiency and food sensitization, by investigating whether cord blood vitamin D deficiency is associated with food sensitization and whether such an association can be modified by genetic variants in a prospective birth cohort study.

STUDY POPULATION. Children (N = 649) enrolled at birth in the Boston Birth Cohort and followed prospectively were studied. Children were included if data were available for cord blood 25(OH)D concentration, specific immunoglobulin E (IgE) to common food allergens, and genotyping of 11 candidate genes involved in regulation of either IgE or 25(OH)D concentrations.

METHODS. Vitamin D deficiency was defined as 25(OH)D <11 ng/mL, and food sensitization was defined as specific IgE ≥0.35 kU/A/L to any of 8 common food allergens (milk, egg white, peanut, soy, shrimp, walnut, cod fish, and wheat) in early childhood. Genotyping for single nucleotide polymorphisms was done for 11 genes known to be involved in regulating 25(OH)D and IgE concentrations. The effects of vitamin D deficiency on food sensitization individually and jointly with single-nucleotide polymorphisms (SNPs) of the selected genes were tested by using logistic regression.

RESULTS. Among the 649 children studied, 44% had vitamin D deficiency and 37% were food sensitized. Vitamin D deficiency was not associated with food sensitization when examined alone. When examined together with candidate gene SNPs, a significant interaction was detected between IL4 gene polymorphism (rs2243250) and vitamin D deficiency. Similar but weaker interactions were observed for SNPs in MS4A2 (rs512555), FCER1G (rs2070901), and CYP24A1 (rs2762934). The interaction between vitamin D deficiency and these polymorphisms was stronger when all 4 were considered together as opposed to individually.

CONCLUSIONS. Vitamin D deficiency is associated with food sensitization in individuals with specific genotypes, suggesting an interaction between these features and food sensitization.

REVIEWER COMMENTS. The relationship between vitamin D deficiency and allergy has been an active area of research, and this study may help to explain conflicting findings from previous studies. These findings suggest that early vitamin D status may play a role in the development of food sensitization and subsequent food allergy in certain subpopulations with defined genetic susceptibilities. Future work, if confirmatory, could ultimately lead to better risk assessment and potential interventions for food allergy in early childhood.

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Identification of Specific Foods Responsible for Inflammation in Children With Eosinophilic Esophagitis Successfully Treated With Empiric Elimination Diet

PURPOSE OF THE STUDY. To identify specific foods responsible for eosinophilic esophagitis (EoE) in children who achieved histologic remission with a 6-food elimination diet (SFED).

STUDY POPULATION. A cohort of 46 children aged 7.6 ± 4.3 years who achieved clinical and histologic remission with an SFED were studied in a children’s university hospital setting.

METHODS. All children initially achieved clinical and histologic remission of EoE by using an SFED. Individual foods were then reintroduced with subsequent endoscopies and biopsies 6 weeks after each food reintroduction. Retrospective statistical analysis was used to determine odds ratios for each food.

RESULTS. Thirty-six (78%) children in the initial cohort of 46 completed the study. A single offending food was
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