

How home food availability affects young children's nutrient intake: study

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Early childhood is an important time for learning about nutrition and establishing healthy eating behaviours. Young children rely on parents to provide food options, and the availability of food in the home affects their dietary choices. A new study from the University of Illinois Urbana-Champaign looks at changes in home food availability and nutrient intake for children from 2 to 4 years old.

“It’s important to understand how the environments that children are in can influence their diet and nutrition. What types of foods and beverages are available in the home, and how accessible are those items for the young child? It’s about the likelihood of exposure to foods and having the opportunity to try foods, and also whether they may be able to access or grab foods themselves,” said lead author Jennifer Barton, now an assistant research professor at Pennsylvania State University. Barton conducted the research as a postdoctoral research associate at the Family Resiliency Center in the Department of Human Development and Family Studies (HDFS), part of the College of Agricultural, Consumer and Environmental Sciences (ACES) at Illinois.

Barton and her colleagues used the Home Food Inventory (HFI) to measure food availability at 24, 36, and 48 months of age. The HFI is a comprehensive checklist of food categories administered by a research assistant visiting the homes of participating families. The researchers correlated the HFI data with surveys of the children’s food consumption completed by their mothers.

“We found significant changes in several food categories over time. Food items such as non-whole grains, processed meats, savoury snacks, candy, and microwavable or quick-cook foods were more commonly available in the home at 48 months compared to 24 and 36 months,” Barton said.

The study included 468 mothers and children who were participants in STRONG Kids 2, an ongoing research project in Illinois that looks at nutrition and healthy habits from infancy through 10 years of age. STRONG Kids 2 co-directors Barbara Fiese, professor emerita of HDFS, and Sharon Donovan, professor of food science and human nutrition at Illinois, also contributed to the study.

The HFI includes an obesogenic score, which indicates the obesity risk of different foods. However, the scores are based on dietary recommendations for older children and include regular-fat dairy products such as milk, yoghurt, and cheese. Toddlers have different energy and nutrient needs, and dairy products are considered as part of a healthy diet for young children, necessary for growth and development.

The researchers tested three obesogenic scores, two of which were developmentally sensitive scores that excluded milk, yoghurt, and cheese. Even with the modified categories, they found that obesogenic scores increased significantly from 24 to 48 months.