

Assessing children's eating behavior using a 7-day food log

Natalie Rangelov

N. Rangelov¹, P. Marque-Vidal², L.S. Suggs¹

¹BeChange Research Group, Institute for Public Communication, University of Lugano, Switzerland

²Department of Internal Medicine, CHUV, University of Lausanne, Switzerland

Contact: natalie.rangelov@usi.ch

Background

Measuring children's eating behavior is riddled with challenges. Recall, portion sizes, and food frequency questionnaire length are often reported as challenges to measuring food

intake of children. While direct observation and clinical measures can serve as reliable indicators of food consumption, they are not always feasible for public health practice and research. Asking children to report their food consumption can be seen as unreliable and parents may tend to provide more socially desirable responses when reporting their child's consumption. The purpose of this paper is to assess the level of agreement between children and their parents when reporting a child's food consumption.

Methods

A cross-sectional study of children and parents living in Ticino Switzerland was conducted in 2014 with 300 children in elementary and middle school (roughly aged 6–12) and one of their parents. Children and parents separately completed a log of the child's food consumption for 7 consecutive days. Foods consumed were reported and coded, and no portion size was asked for.

Results

To assess agreement between parental reporting and child reporting of food intake, we calculated the mean for 21 foods consumed and ran Spearman's correlations. Results show a high level of agreement between child and parent reporting with all foods consumed being statistically significant. The strongest correlations were found in pastries (.84), farinaceous (.83), fruit (.80) dairy products (.77), sweets (.74), eggs (.74), junk food (.72), and sweet drinks (.72). The weakest correlations were found for whole grains (.58), fatty meat (.57) and sauces (.55). Kappa values and Lin's measure of agreement were calculated as well.

Conclusion

When assessing children's eating behavior, it may be just as reliable to ask them to complete a diet log each day, rather than relying on parents to provide such information for them.

Key message

- When assessing food intake, children are just as good as parents in reporting what they ate