Intervention effects on dietary intake among children by maternal education level: results of the Copenhagen School Child Intervention Study (CoSCIS) - DTU Orbit (10/01/2019)

Dietary intake among Danish children, in general, does not comply with the official recommendations. The objectives of the present study were to evaluate the 3-year effect of a multi-component school-based intervention on nutrient intake in children, and to examine whether an intervention effect depended on maternal education level. A total of 307 children (intervention group: n = 184; comparison group: n = 123) were included in the present study. All had information on dietary intake pre- and post-intervention (mean age 6·8 and 9·5 years for intervention and comparison groups, respectively) assessed by a 7-d food record. Analyses were conducted based on the daily intake of macronutrients (energy percentage (E%), fatty acids (E%), added sugar (E%) and dietary fibre (g/d and g/MJ). Analyses were stratified by maternal education level into three categories. Changes in nutrient intake were observed in the intervention group, mainly among children of mothers with a short education (<10 years). Here, intake of dietary fibre increased (β = 2·1 g/d, 95 % CI 0·5, 3·6, P = 0·01). Intake of protein tended to increase (β = 0·6 E%, 95 % CI − 0·01, 1·2, P = 0·05), while intake of fat (β = − 1·7 E%, 95 % CI − 3·8, 0·3, P = 0·09) and SFA (β = − 0·9, 95 % CI − 2·0, 0·2, P = 0·10) tended to decrease. Also, a significant intervention effect was observed on the intake of SFA among children of mothers with a long education (β = − 0·8, 95 % CI − 1·5, − 0·03, P = 0·04). This multi-component school-based intervention resulted in changes in the dietary intake, particularly among children of mothers with a short education. As the dietary intake of this subgroup generally differs most from the recommendations, the results of the present study are particularly encouraging.

General information
State: Published
Organisations: National Food Institute, Division of Nutrition, University of Southern Denmark, Capital Region of Denmark, University College Zealand
Number of pages: 12
Pages: 963-974
Publication date: 2015
Peer-reviewed: Yes

Publication information
Journal: British Journal of Nutrition
Volume: 113
Issue number: 6
ISSN (Print): 0007-1145
Ratings:
Web of Science (2019): Indexed yes
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Scopus rating (2017): CiteScore 3.65 SJR 1.756 SNIP 1.555
Web of Science (2017): Impact factor 4.586
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 3.46 SJR 2.055 SNIP 1.535
Web of Science (2016): Impact factor 4.844
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 3.52 SJR 1.583 SNIP 1.442
Web of Science (2015): Impact factor 4.051
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 3.18 SJR 1.532 SNIP 1.273
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 3.61 SJR 2.746 SNIP 2.479
Web of Science (2013): Impact factor 3.861
ISI indexed (2013): ISI indexed yes