Table 4-B.1. Summary of outcomes and type of parental involvement tested from studies examining the effects of nutrition education delivered with and without parental involvement

Study	Outcomes	Type of Parental Involvement
Beech et al., 1996	Ø There was a NS trend for children in the parent-targeted group to consume fewer sweetened beverages than the child-targeted group (-0.64 servings/d; p=0.09) and a trend toward reduced BMI. (+) Children in the parent-targeted active intervention group significantly reduced intake of sweetened beverages compared to the control group (p<0.001).	Child-targeted intervention (girls only) vs. parent-targeted intervention (parents only) vs. a control group (no intervention) Both interventions consisted of 90 min/wk educational sessions for 12 wks (direct parental involvement)
De Bourdeaudhuij et al., 2002	Ø No significant differences between the three intervention groups in fat intake. Subjects with baseline fat intake above recommended levels significantly decreased fat intake post-intervention; however, there were no differences between the groups.	Family-based (child + parent) vs. parent (parent alone) vs. child (child alone) Intervention consisted of tailored nutrition education letters mailed home for 4 wks (indirect parental involvement)
Haerens, 2006	Ø Boys and Girls: intervention groups compared to control → no differences in fruit, soft drinks and water consumption. (+) Girls: Interventions with and without parental support compared to control → decreased fat intake (g and % energy) (p<0.05) Ø Boys: intervention groups compared to control → no differences in fat intake	Computer-based intervention with parental support vs. computer-based without parental support vs. no intervention. Results of a 2-yr school-based program, combined with environmental changes and computer-tailored feedback were reported. Parental involvement consisted of in-person meetings, provision of a computer CD on reducing fat intake, and educational materials and newsletters sent home (direct and indirect parental involvement)
Haerens, 2007a	Ø Boys and Girls: intervention groups compared to control → no differences in fruit, soft drinks and water consumption. (+) Girls: Intervention with parental support compared to intervention alone and control → decreased fat intake (g and % energy) (p<0.05) Ø Boys: intervention groups compared to control → no differences in fat intake	Computer-based intervention with parental support vs. computer-based without parental support vs. no intervention. Results of a 1-yr school-based program, combined with environmental changes and computer-tailored feedback were reported. Parental involvement consisted of in-person meetings, provision of a computer CD on reducing fat intake, and education materials and newsletters sent home (direct and indirect parental involvement).
Hopper et al., 1996	Ø No significant differences between the school-home and school-only groups in fat intake following the intervention. Both the school-home and school-only groups decreased fat intake compared to control (p<0.05).	School-home intervention vs. school-only intervention vs. control School intervention: 2.5 hr nutrition education sessions per week for 6 weeks. The school-home intervention combined the school-based nutrition education with a parent/home education component. The parent/home education component included weekly packets sent home (indirect parental involvement). The control group received the usual school nutrition education.
Kitzman-Ulrich et al., 2009	(-) Psychoeducation-only group demonstrated a greater decrease in energy intake compared to the multifamily therapy plus psychoeducation and control groups (p<0.01).	Multi-family therapy + psycho-education vs. psycho-education-only vs. control (no intervention) The psycho-education intervention consisted of a 16-wk educational curriculum with behavioral-skill building and psychosocial components (direct parental involvement). Multi-family therapy intervention consisted of a 45-min group session.
Luepker et al., 1996	Ø No significant differences between the intervention groups in any dietary behaviors following the intervention. (+) Both intervention groups significantly decreased total fat, saturated fat, MUFA, PUFA, and cholesterol compared to control (p<0.01). There was a trend for decreased sodium and increased protein and carbohydrate intake in the intervention groups compared to control (p<0.09).	School-family vs. school-only vs. control The CATCH intervention included modifications to the school food environment, physical education, and nutrition education curriculum. The home curriculum included packets sent home and a family activity night (direct and indirect parental involvement). The control group received the usual health curricula, physical education, and food service programs.

Nader et al., 1996	Ø No significant effect in dietary behaviors due to dose of adult participation.	Secondary analysis of data from the CATCH study to conduct a dose analysis of the family component for effects of level of adult participation on outcomes. See description of CATCH above (direct and indirect parental involvement)
Vandongen et al., 1995	(+) Comparisons were only made relative to control, and not between intervention groups. (+) Girls: fat intake decreased significantly in the two home nutrition groups and fiber intake increased in the school-home nutrition and fitness groups. (+) Boys in the fitness, fitness-school nutrition, and school-home nutrition group reduced sugar intake.	Fitness-only vs. fitness-school nutrition vs. school nutrition-only vs. school nutrition-home nutrition vs. home nutrition-only vs. control School Nutrition: classroom-based nutrition education Home Nutrition (indirect parental involvement): Educational materials sent home for use by the parent and child Control: No intervention
Wind et al., 2008	(+)/Ø Children with the highest parental involvement showed the highest increase in frequency of vegetable intake compared with children who had medium or low parental involvement ($p<0.05$). Ø No significant associations were found between parental involvement and changes in frequency of fruit intake.	Intervention: School nutrition education targeting increased fruit and vegetable intake. Parental involvement via newsletters (indirect involvement), a computer-tailored tool (direct involvement), and changes to the school food service environment. Modifiable by participating European countries. Analyses were conducted to determine the effects of parental involvement (whether or not parents participated in intervention components at home) on fruit and vegetable intake.

(+): indicates a positive association
(-): indicates an inverse association
Ø: indicates a non-significant difference