



Table 4-E.1. Description of Components Tested in Studies of the Effects of Single- vs. Multi-Component Nutrition Education Interventions on Dietary Intake-Related Behavior

Study	Intervention Groups			Outcomes*
	Single-Component (SC) Intervention	Multi-component (MC) Intervention	Control	
DeBar, 2006 RCT	Individual counseling visits	<ul style="list-style-type: none"> Individual counseling visits Telephone calls Group meetings Diet self-monitoring Use of a study website Youth/parent newsletters Fitness center membership 	No control group	<ul style="list-style-type: none"> MC > SC for calcium, vitamin D, fruit, vegetables* MC = SC for soda (no change)
He, 2009 RCT	Free fruit or vegetable snack	<ul style="list-style-type: none"> Free fruit or vegetable snack Classroom nutrition education 	Control group received no intervention	<ul style="list-style-type: none"> MC > Control for fruit or vegetable consumed at school* SC = MC and control for fruit or vegetable consumed at school (no change) MC, SC = control for fruit or vegetable consumed at home (no change)
Hopper, 2005 RCT	Usual school nutrition education curriculum	<ul style="list-style-type: none"> Classroom nutrition education Physical education Parental involvement 	No control group	<ul style="list-style-type: none"> MC > SC for fat intake* MC = SC for calories, protein, carbohydrate, saturated fat, cholesterol, sodium, percent energy from carbohydrate, percent energy from fat (no change)
Hopper, 1996 RCT	Classroom nutrition education	<ul style="list-style-type: none"> Classroom nutrition education Parental involvement 	Usual school nutrition education curriculum	<ul style="list-style-type: none"> MC = SC for fat (both decreased significantly compared to controls)*
Kitzman- Ulrich, 2009 RCT	Family-based psycho-education	<ul style="list-style-type: none"> Family-based psycho-education Multi-family group therapy 	Control group received no intervention	<ul style="list-style-type: none"> SC > MC, control for calories*
Long, 2004 Quasi-experimental	Usual classroom nutrition education curriculum	<ul style="list-style-type: none"> Classroom nutrition education Web-based nutrition education 	No control group	<ul style="list-style-type: none"> MC = SC
McAleese, 2007 Non-RCT	Classroom nutrition education	<ul style="list-style-type: none"> Classroom nutrition education School gardening 	Control group received no intervention	<ul style="list-style-type: none"> MC > SC and control group for fruit, vegetables, vitamin A, vitamin C, fiber*
McKenzie, 1996 RCT	Home nutrition education (parent-child auto-tutorial)	<ul style="list-style-type: none"> Individual counseling sessions (child and parent) Take-home nutrition education materials Telephone access to an RD 	Control group received no intervention	<ul style="list-style-type: none"> SC decreased fruit (fruit and fruit juice) * MC, Control: NS changes



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Neumark-Sztainer, 2003 RCT	Distribution of educational materials on healthy eating and physical education in school	<ul style="list-style-type: none"> • Nutrition education sessions • Physical activity sessions • Social support sessions • Lunch meetings with healthy food • Parental involvement 	No control group	<ul style="list-style-type: none"> • MC = SC
Olvera, 2010 Non-RCT	Behavioral counseling sessions	<ul style="list-style-type: none"> • Nutrition education sessions • Physical activity sessions • Behavioral counseling sessions 	No control group	<ul style="list-style-type: none"> • MC = SC (no change)
Parmer, 2009 Non-RCT	Classroom nutrition education	<ul style="list-style-type: none"> • Classroom nutrition education • School gardening 	Control group received no intervention	<ul style="list-style-type: none"> • MC > SC > Control for vegetables*
Prell, 2005 RCT	Modification of school meals	<ul style="list-style-type: none"> • Modification of school meals • Home economics education or cooking 	Control group received no intervention	<ul style="list-style-type: none"> • MC > Control for fish* • MC increased fish* • SC = Control and MC (no change)
Reinaerts, 2008 RCT	Free fruit or vegetable snack	<ul style="list-style-type: none"> • Classroom nutrition education • Parental involvement 	Control group received no intervention	<ul style="list-style-type: none"> • MC = SC > Control* (increased fruit, total fruit, juice, vegetables) • SC > MC, and Control in vegetable intake at snack and dinner*
Sahota, 2001 RCT	Usual school nutrition education curriculum	<ul style="list-style-type: none"> • Teacher training • Modification of school meals, foods sold in school • Action plans developed and implemented for nutrition and physical education curriculum 	No control group	<ul style="list-style-type: none"> • MC > SC for vegetables* • SC > MC (obese subjects) for fruit* • SC > MC (overweight subjects) for sugar*

* Indicates that the differences in outcomes described were statistically significant at the P≤0.05 level.

> Indicates an improvement in one group compared to another.

= Indicates no differences between groups.