

**Kolopaking** Use of the Self-Regulatory Approach to Develop and Evaluate the Nutrition Education Effectiveness: Elementary school-based program in mid-low income urban area of East Jakarta.

### **Abstract**

The school-aged years are a critical time for delivering nutrition education to children because that is the time that cognitive-motivational processes emerge as an important influence on food choices. Conventional methods of delivering nutritional message emphasize on knowledge acquisition; however, experiential knowledge is more effective to promote healthy eating behavior among children. The current study used self-regulatory approach and social cognitive learning technique to develop nutrition education program for 3rd and 4th grades mid-low income children. Until now, there has not been any study on nutrition education in Indonesia that focuses on developing skills and behaviors related to areas of food and eating habits. The general objective of the study is to identify the effectiveness of the program by assessing dietary intake as a combined measure of children's self-regulation of food choice, children's self-motivation, and maternal self-efficacy on the home food environment. Based on formative study, culturally tailored and age-appropriate in-class lessons adapted from Indonesian food dietary guidelines were designed for mid- to low-income children in an urban area of Jakarta. Students received 24 in-class sessions, 45 minutes each session twice a week, for a 12-week intervention taught by nutrition professionals. Both school teachers and parents were involved in the program. Outcome evaluations were studied using a quasi-experimental design with the intervention (n=137) and comparison (n=120) groups combined for three assessment periods: pre-intervention, post-intervention and follow-up (12 weeks after post-intervention). Participants were pair of children and their mothers. To answer the research questions, a multiple group structural equation model (SEM) with a structured mean analysis was used. The results suggest that nutrition education program with a self-regulatory approach had a significant effect in improving children's self-regulatory behaviors in terms of food choice and maternal self-efficacy on home food environment. The results also showed that the program had a significant sustainable effect in terms of improving children's dietary intakes. Using self-regulatory model, the results suggest that there are two approaches to implement the program. One approach is to modify maternal self-efficacy on the home food environment to improve children's self-motivation and their dietary intake; another is to directly modify children's self-regulation of food choice to improve their dietary intake.

*Keywords: school-aged children; nutrition education; maternal self-efficacy; self-motivation; self-regulation*