

THE EFFECTIVENESS OF BEHAVIORAL INTERVENTION PROGRAMS UTILIZING
SELF-CONTROL, SELF-EFFICACY, AND IMPLEMENTATION INTENTION
FOR MODIFYING PSYCHOLOGICAL VARIABLES, EATING BEHAVIOR AND
PHYSICAL ACTIVITY, AND BMI IN ELEMENTARY SCHOOLCHILDREN, BANGKOK

AN ABSTRACT

BY

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Patcharee Duangchan. (2010). *The Effectiveness of Behavioral Intervention Programs Utilizing Self-control, Self-efficacy, and Implementation Intention for Modifying Psychological Variables, Eating Behavior and Physical Activity, and BMI in Elementary Schoolchildren, Bangkok*. Dissertation, Ph.D. (Applied Behavioral Science Research). Bangkok: Graduate School, Srinakharinwirot University. Advisor committee: Assoc. Prof. Dr. Dusadee Yolao, Prof. Ann Macaskill, Asst. Prof. Dr. Ungsinun Intarakamhang, Assoc. Prof. Chittiwat Suprasonsin.

The aims of this experimental research were to 1) examine the effectiveness of the individual Self-control, Self-efficacy, and Implementation Intention (SSII) Healthy Eating Intervention Program and SSII-Physical Activity Intervention Program in developing self-efficacy, self-control, healthy eating behavior, physical activity, and thereby combating obesity-related Type 2 diabetes; 2) examine the effectiveness of the SSII-Healthy Eating Intervention and Physical Activity intervention programs at the end of intervention implementation in terms of ordering effects and combined effects; and 3) provide a test of the PBC in predicting actual behavior change in relation to healthy eating behavior and physical activity. The sample of this study was 41 students, aged 9-11 years, who met the inclusion criteria and consented to participate in the study; which 21 of those were studying in Sawadeewittaya School (School A), and other 20 were studying in Watditsahongsaram School (School B). The study measures included knowledge about obesity-related Type 2 diabetes, healthy eating behavior, healthy eating self-efficacy, healthy eating self-control, physical activity, physical activity self-efficacy, physical activity self-control, and affective beliefs and readiness to change behavior. The study interventions were the SSII-Healthy Eating Intervention Program, and the SSII-Physical Activity Intervention Program. Each of the two interventions was created using the self-efficacy, self-control, and implementation intention principles. Each school had the interventions implemented in a different order. The measurements of dependent variables were conducted on 3 times: baseline, after the first intervention, after the combined interventions. Data analysis was performed using SPSS for Windows. The statistical tests were descriptive statistics, one-way repeated measures ANOVA, one-way multivariate analysis of covariance (MANCOVA), and multiple regression.

According to research hypotheses, results demonstrated that:

1. After the individual SSII-Healthy Eating Intervention Program; mean scores of knowledge about obesity-related Type 2 diabetes, healthy eating self-efficacy, healthy

eating self-control, and healthy eating behavior significantly increased from the baseline and BMI significantly decreased.

2. After the individual SSII-physical activity Intervention Program; mean score of physical activity significantly increased from the baseline whereas BMI showed a significant decrease.

3. In School A, the combined effects of the SSII-Healthy Eating and Physical Activity Intervention Programs on two dependent variables: knowledge about obesity-related Type 2 diabetes, and healthy eating behavior; were greater than that of the individual SSII-Healthy Eating Intervention. Whereas in School B, the combined effects of the SSII-Physical Activity and Healthy Eating Intervention Programs on just knowledge about obesity-related Type 2 diabetes were greater than that of the individual SSII-Physical Activity Intervention.

4. There were significant differences in dependent variables associated with school after adjustment for differences in knowledge, physical activity self-efficacy, and BMI prior to the intervention. Univariate analysis showed that after the combined intervention programs, there were differences in healthy eating self-efficacy and physical activity self-control between the School A and the School B, where the School A provided higher healthy eating self-efficacy and less physical activity self-control than the School B.

5. Reduction in BMI was not significantly correlated with increases in both self-efficacy and self-control in relation to healthy eating behavior and physical activity. Regarding an increase in healthy eating behavior, it was not significantly predicted by increases in self-efficacy and self-control, but was significantly predicted by a decrease in intention to perform healthy eating behavior. In turn, increase in intention to perform healthy eating behavior was significantly predicted by increase in healthy eating self-efficacy. In contrast, increase in physical activity was significantly predicted by increases in physical activity self-efficacy and physical activity self-control, with only physical activity self-control was a significant predictor.

. (2553). ประสิทธิภาพของโปรแกรมปรับเปลี่ยนพฤติกรรมที่ประยุกต์ใช้แนวคิดการควบคุมตนเอง การรับรู้ความสามารถของตนเอง และการแปลงเจตนาสู่การกระทำ เพื่อปรับเปลี่ยนตัวแปรทางจิต พฤติกรรมการบริโภคอาหารและการเคลื่อนไหวออกกำลัง และดัชนีมวลกาย ในเด็กนักเรียนชั้นประถมศึกษา กรุงเทพมหานคร. . .

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Ann Macaskill, , Professor

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