

EatFit

(Research-tested)

Summary of Evaluation Methods

Several studies have examined the impacts of EatFit on dietary and PA behaviors as well as academic performance. These include: two quasi-experimental crossover-controlled studies and one treatment (EatFit + goal setting)/control (EatFit) study with students randomly assigned to intervention groups. In the crossover-controlled studies, students were assessed at baseline (Time 1, T_1), 5 weeks (Time 2, T_2), and 10 weeks (Time 3, T_3). The control period was from T_1 to T_2 and the intervention period occurred during T_2 to T_3 . All evaluation tools were self-administered. One of the crossover-controlled studies used a 25-question multiple choice survey to capture five Mathematics and English content standard areas for 6th grade from the Standardized Testing and Reporting (STAR) program; while the other two studies assessed students' dietary behaviors and self-efficacy (19 items each) and PA behaviors and self-efficacy (4 items each). The response options for diet and PA behaviors were collected using the number of days in the past week (ranging from 0 to 7); self-efficacy items were measured on a 4-point scale (ranging from 1 "not at all confident" to 4 "totally confident"). Goal setting was also examined in each study.

Evaluation Audience

The three convenience samples of students were 41 8th graders (crossover-controlled study on diet/PA behaviors and self-efficacy), 84 6th graders (crossover-controlled study on academic performance) and 94 8th graders (treatment/control study on diet/PA behaviors and self-efficacy); all from low-income communities in the central valley of California. A majority (58-65%) of these students qualified for free or reduced-priced lunch.

Curriculum Audience

This nutrition curriculum is intended for low-income middle school students (grades 6-8).

Summary of Evaluation Results

For the two crossover-controlled studies, significant gains were seen between the control period (T_1 to T_2) and the intervention period (T_2 to T_3) in 8th grade students' dietary behaviors ($p < .05$), PA self-efficacy ($p < .05$); and three of the five academic performance measures which include listening and speaking ($p < .05$), mathematical reasoning ($p < .05$) and algebra and functions 2.3 ($p < .001$) among 6th grade students. Additional evidence for the efficacy of EatFit comes from the treatment/control study with 8th grade students. Although no impacts were observed in the full sample when comparing pre/post differences in the treatment group (receiving EatFit with guided goal setting) to the control group (participating in EatFit alone). This analysis was based on

the intent-to-treat principle. However, some students in the treatment group did not try to reach their goals; while some in the control group set spontaneous diet and PA related goals. Based on this finding, the data were reanalyzed comparing those in the treatment group who demonstrated goal effort with those in the control group who did not set spontaneous diet and PA goals, showing significantly greater pre/post improvements in the treatment group for diet ($p=.02$), PA ($p=.04$), and PA self-efficacy ($p=.04$).

References

Shilts, MK, Lamp, C, Horowitz, M, Townsend, M. Pilot Study: EatFit Impacts Sixth Graders' Academic Performance on Achievement of Mathematics and English Education Standards. *JNEB* 2009; 41(2):127-131.

Shilts, MK, Horowitz, M, Townsend, M. Guided goal setting: Effectiveness in a dietary and physical activity intervention with low-income adolescents. *Int J Adolesc Med Health* 2009; 20(1):111-122.

Shilts, MK, Townsend, M. A goal setting intervention positively impacts adolescents' dietary behaviors and physical activity self-efficacy. *Journal of Youth Development Bridging Research & Practice* 2012; 7(4): 92-108.

Horowitz, M, Shilts, MK, Townsend, M. EatFit: A Goal-Oriented Intervention that Challenges Adolescents to Improve Their Eating and Fitness Choices. *JNEB* 2004; 36, 43-44).

Warner, J, Byron, J. EatFit guides adolescents to improve health and fitness. *California Agriculture* 2004; 58(1): 10-11.

Shilts, MK, Townsend, M, Horowitz, M. Pilot Study of the EatFit Intervention to Determine Sample Size and Protocol for a Randomized Controlled Trial. *Center for Advanced Studies in Nutrition and Social Marketing, University of California at Davis* 2002; 2.