

Web-based intervention appears ineffective for preventing weight gain in adolescents

November 7 2011

A web-based computer-tailored intervention aiming to increase physical activity, decrease sedentary behavior, and promote healthy eating among adolescents was not associated with positive long-term outcome measures, but may have positive short-term effects on eating behaviors, according to a report published Online First by *Archives of Pediatrics & Adolescent Medicine*.

"The high prevalence of overweight and obesity among adolescents is a major public health concern because of its association with various chronic diseases," the authors write as background information in the article. "Computer tailoring has been recognized as a promising health communication technique to promote energy balance-related behaviors."

To evaluate short- and long-term effectiveness of a web-based computer-tailored [intervention](#) on preventing excessive weight gain in adolescents, Nicole P. M. Ezendam, Ph.D., then of Erasmus University Medical Center, Rotterdam, the Netherlands, now of Tilburg University, Tilburg, the Netherlands, and colleagues developed the online school-based, FATaintPHAT intervention. The intervention included 20 schools in the Netherlands, and a total of 883 students ranging from 12 to 13 years of age. The main objectives of the intervention were to improve dietary behaviors (including reducing consumption of sugar-sweetened beverages, and increasing intake of fruits, vegetables and whole grains), reduce [sedentary behavior](#) and increase physical activity. Students not meeting behavioral guidelines at the start of the study were considered "at risk."

The FATaintPHAT intervention included eight modules that addressed issues of weight management and energy balance-behaviors. Each module contained information about the behavior-health link, an assessment of behavior, individually tailored feedback on the behavior and an option to formulate an implementation intention to prompt specific goal setting and action planning.

The complete analysis showed no intervention effects on BMI (body mass index), waist circumference, or percentage of students being overweight or obese in the total sample. At the four-month follow-up, students in the [intervention group](#) were less likely to report drinking more than 400 milliliters (13.52 ounces) of sugar-sweetened beverages per day compared with students in the [control group](#) in the total sample, but not in the at-risk group. Average self-reported snack consumption was lower in the intervention group than the control group at the four-month follow-up; however, the difference was not statistically significant at the two-year follow-up.

Among the students at risk, those in the intervention group reported eating more pieces of fruit than those in the control group at the four-month follow-up. Students in the intervention group also reported eating more grams per day of vegetables than those in the control group for both the total sample and among at-risk students. There were no differences in self-reported consumption of whole-wheat bread between the intervention group and control group. An inverse relationship was observed for students in the intervention group, as at-risk students in the intervention group were less likely to report participating in sports at the four-month follow-up than [students](#) in the control group.

"The FATaintPHAT intervention was associated with positive short-term effects on diet but with no effects or unfavorable effects on [physical activity](#) and sedentary behavior," the authors write. "In conclusion, our study shows that the computer-tailored intervention FATaintPHAT was

not effective in modifying anthropometric outcome measures but that it can have a positive effect on dietary behaviors among [adolescents](#) at short-term follow-up."

More information: Arch Pediatr Adolesc Med. Published online Nov. 7, 2011. [doi:10.1001/archpediatrics.2011.204](https://doi.org/10.1001/archpediatrics.2011.204)

Provided by JAMA and Archives Journals

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