

Balancing Food & Play

The Promoting Healthy Weight Initiative was established in 2006 as a way to collectively pool resources within the Texas AgriLife Extension Service to address the rising rates of childhood obesity. A multi-disciplinary team developed an integrated, interactive third-grade enrichment curriculum on nutrition and physical activity. The curriculum is based on the Texas Essential Knowledge and Skills (TEKS).

Relevance

- Nationally, 19 percent of children ages 6 to 11 years are obese (95th percentile for body mass index [BMI] by age/sex).
- In Texas, 23 percent of fourth-grade children are obese (95th percentile for BMI by age/sex).
- Childhood obesity is associated with increased risk for diabetes, high blood pressure, and adult overweight/obesity.
- MyPyramid for Kids describes a healthful diet and encourages physical activity for children ages 6 to 11 years.
- Some research suggests consumption of regular soda may be associated with decreased milk consumption and diet quality.
- About 1/3 of Texas children do not get the recommended amount of 60 minutes of physical activity each day.

- On average, children spend 4.5 hours a day in front of a screen, exceeding the Academy of Pediatrics' recommendation to limit screen time to 2 hours or less.

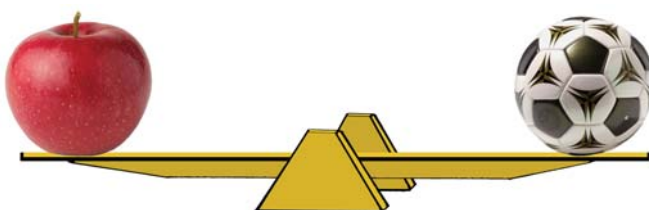
Response

The *Balancing Food & Play* curriculum was designed to improve knowledge and behaviors related to:

- snacking on fruits and vegetables,
- drinking milk with meals and water with snacks,
- encouraging at least 60 minutes of physical activity each day, and
- limiting screen time to two hours or less per day.

The curriculum contains three elements: lesson plans, take-home reading assignments, and student journals.

- Twenty lesson plans address physical activity, MyPyramid, making healthy choices, and goal setting.
- The lessons incorporate higher-level thinking and learning skills (i.e., opportunities to design games, commercials, menus).
- Eight take-home reading assignments and parent letters encourage family engagement by providing the opportunity for shared family discussions.
- The reading assignments follow a fictional family as they learn about nutrition and physical activity, set goals, and learn to make healthy choices.
- Each student receives a 41-page journal. The journal allows opportunities for reflective learning and goal setting.



- The program evaluation includes child surveys regarding knowledge and behavior.
- The percentage of students who reported excessive screen time (4 hours or more) usage decreased from 18 percent (240) to 11 percent (147).
- The percentage of students who reported having 60 minutes or more of physical activity increased from 60 percent (724) to 70 percent (828).

Results

To date, approximately 2,500 students have received the curriculum. In 2008, 28 counties participated in the delivery of *Balancing Food & Play*, and data from 23 counties were analyzed; 1,325 students were evaluated.

Reasons for exclusions were: student journals were not used during implementation; matched pre- and post-surveys were not available due to photocopying of survey instruments or lost data sets due to a hurricane; survey instruments were administered out of sequence; and failure to implement all 20 lessons due to end of school year activities.

At the conclusion of *Balancing Food & Play*, a statistically significant improvement ($p \leq 0.05$) in knowledge related to the core concepts (fruit and vegetables, beverage choice, physical activity, and screen time) was observed.

While no behavior change was noted for fruit and vegetable consumption, statistically significant differences ($p \leq 0.05$) from pre to post were noted in a number of areas, including the amount of:

- regular soda consumed,
- time spent on screen time, and
- time spent physically active.

At the completion of the curriculum, behavior changes included:

- The percentage of students who reported “Always or Almost Always” drinking regular (non-diet) soda decreased from 28 percent (337) to 21 percent (247).

Student comments regarding *Balancing Food & Play* include:

- I have been eating healthier, exercising, drinking water with snacks, and drinking milk with meals.
- I like it because it shows you what kind of food you have to eat so you can be healthy.
- My family all eats better and does not watch TV a lot. My family has changed because now my mom and my sister are going outside more. My mom jumps on the trampoline with me and my sister.

Parent comments regarding *Balancing Food & Play* include:

- He is a lot more physically active. He drinks more water, and he doesn't watch that much T.V. I realized how important it is for parents to help their children and themselves to stay fit and healthy.
- It is important for our family to participate in daily activities with one another to promote wellness.
- We learned that we all need to do some kind of physical activity to stay healthy and spend time with your family.
- I've learned how important it is to model healthy habits as a parent!

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