The SPORKS for Kids: A Preschool Nutrition Education Program to Increase Children’s Willingness to Try New Foods

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**OBJECTIVE**

- To assess the impact of an experiential nutrition education program, The SPORKS for Kids, on preschoolers’ willingness to try a novel vegetable.

**USE OF THEORY AND PREVIOUS RESEARCH**

- Repeated taste exposure, sensory learning, and nutrition education have been successful strategies for increasing willingness to try new, novel foods.
- Providing repeated exposures to novel foods in fun, positive environments (positive valence) may also increase children’s willingness to try a novel food.
- The SPORKS for Kids Program was adapted from The Food Friends: Fun with New Foods program, which has produced increases in willingness to try new foods and novel vegetable consumption in young children over a 3-year period (PreK – 1st grade).
- To develop program activities, activities from Food Friends that were consistently highly rated by preschool teachers and based on Social Cognitive Theory constructs, were selected and adapted for The SPORKS for Kids program. A total of 8 activity-related and 6 nutrition-related activities were selected and adapted.

**TARGET AUDIENCE & SETTING**

- Preschool-aged children (n=20) from 2 rural northeast Colorado communities.
- Data was collected across two sites for each cohort.
  - Cohort 1 (n=16): Oct – Dec 2019
  - Cohort 2 (n=13): Jan – March 2020
- Children mean age was 4.2 ± 0.5 years.
- Approximately 59% were male and 38% (n=11) were Hispanic.

**PROGRAM DESCRIPTION**

- Complementary to The SPORKS for Families, a 6-week, 90-minute/session, healthy eating and activity parenting program, Led by research staff, weekly sessions focused on 4 components:
  1. Experiential learning
  2. Repeated exposure
  3. Digital applications
  4. Positive valence

**EVALUATION METHODS**

- Two research staff sat with children during tastings.
- Each child was observed, and it was recorded whether the child tried or did not try the cauliflower.

**RESULTS**

- Overall attendance (Cohorts 1 + 2) was 85%.
- On average there were 24 attempts (cauliflower served) and 18 tries (number of children who tried cauliflower) across cohorts/sites per week.
- During week 1, 62% of children tried cauliflower. The number of children who tried the cauliflower increased steadily over 6 weeks, reaching 100% at week 6 for Cohorts 1 & 2 (Figure 2). &

**Figure 1: Four Core Components of The SPORKS for Kids Intervention**

- Experiential Learning: (A) Nutrition-related activities, like “Grow a Bean Sprout” built children’s familiarity with foods and school readiness skills. (B) In the “Mystery Bag” activity, children were instructed to guess the identity of the food using sensory exploration and vocabulary.
- Repeated exposure: (A) Children were given 3 pieces of cauliflower (novel, target food) and encouraged to try the vegetable in a group setting. (B) The SPORKS Tasting Mat encouraged kids to taste the novel vegetable.
- Digital Applications: (A) We designed The Tasting Party Express, a custom mobile application, to introduce children to food-related vocabulary. (B) Children were introduced to the Tasting Party Express during workshops and encouraged to play it on their own device.
- Positive Valence: (A) To foster a positive environment, children were encouraged to use imaginary play as they were led on musical journeys through community food venues of Healtheadphia, hometown of the SPORKS family. (B) The SPORKS Family kids, Preschoolers, Buddy and Bubbles and their older siblings, Junior and Freckles.

**CONCLUSIONS**

- Willingness to try new foods is an antecedent to a healthful diet.
- Participation in The SPORKS for Kids program resulted in an increased number of children willing to try cauliflower each week.
- Core program components used in this study can be implemented by nutrition educators to increase willingness to try other novel vegetables in preschool-aged children.