# Studying Nutrition Attitudes and Choices in Kids: Evaluating the SNACK Lab community partnership

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## Purpose

- As diet-related disease increases in the US, it is important to encourage children to form healthy eating habits during snacking
- Snack Lab combines an academic medical center, community organization, and local recreation center providing free, nutritious after-school snacks to children in an underserved area in Dallas
- We evaluated the healthy snack intervention to find the children's attitudes and behaviors about healthy snacking in Snack Lab over ten weeks of the intervention

## Methods

- Snack Lab takes place in a South Dallas community recreation center, where the community partner provides the healthy snack intervention with help from the UTSW evaluation team
- Snacks were designed to be nutritionally balanced, typically containing at least three categories out of fruit, vegetable, grain, protein, and dairy
- The children anonymously completed a survey each week and checked off which snack components they tried (to examine their snack behaviors), and rated the snack as a whole with a three-point scale (to examine their snack attitudes)

## Results

- The average number of participants was n=26 children per week from Pre-K through fifth grade
- Participants consumed on average 84% of the snack each week
- Participants rated healthy snacks a 2.7 out of 3 on average
- Participants enjoyed fruits the most and vegetables the least
- Qualitative observations showed that participants were more likely to try more snack components when observing modeling behavior by their peers or trusted adults

**Average Snack Consumption and Rating by Week**

| Week | Average % of Snack Tried | Average 3-Point Snack Rating |
|---|---|---|
| 1 | 73% | 2.4 |
| 2 | 88% | 2.9 |
| 3 | 77% | 2.4 |
| 4 | 97% | 3.0 |
| 5 | 97% | 2.9 |
| 6 | 83% | 2.6 |
| 7 | 90% | 2.7 |
| 8 | 86% | 2.8 |
| 9 | 65% | 2.8 |
| 10 | 82% | 2.8 |
| **Overall** | **84%** | **2.7** |

## Pictures and Quotes from Participants

Figure 1: team members (left to right) EZ, KH, ES, CA at Snack Lab

Figure 2: a snack and the survey sheet for Week 5's sea-turtle themed snack, featuring rice cakes, yogurt, grapes, and kiwi

*"The carrots is my favorite part." (Week 3, Mediterranean lunchbox)*

*"I ate all the strawberries, they were my favorite." (Week 7, apple "donut")*

*"I made a yogurt granola bowl like you!" (Week 7, apple "donut")*

*"The watermelon – it has a good taste to it with the yogurt." (Week 8, yogurt fruit "pizzas")*

*"Snack Lab helps you get stronger and get some more energy – and it makes you smart." (Week 8, yogurt fruit "pizzas")*

## Discussion

- Our child participants enjoyed healthy snacking and tried most of the snack every week, and had largely positive attitudes and behaviors regarding healthy snack consumption
- We have a high participation rate in trying all parts of the healthy snack, and a high level of enjoyment of the snacks, especially fruits; veggies need the most promotion
- Children participating in Snack Lab responded positively when peer and trusted adult modeling showed positive experiences trying snacks and built trust during the intervention weeks
- Strengths included building a strong relationship with our partners and our participants, and our ability to adapt the intervention during implementation and data collection (adding qualitative observations in Week 3 and trusted adult modeling of snack creation and consumption in Week 5)
- Weaknesses included team member variability across data collection weeks and our lack of knowledge on behavioral management strategies for participants

## Conclusion

- The Snack Lab team will use these observations to continue adapting the intervention, consider adding more fresh produce components to snacks, finding ways to improve participant enjoyment of vegetables, and adding personnel demos to encourage trying all parts of the snack

This project is supported with volunteers from UTSW, including one staff (Emma Saving), one pediatric resident of Children's Hospital (Dr. Emily Zientek), three medical students (Aryan Verma, Varsha Danda, Travis Dowd), and one undergraduate student from UTD (Chisom Akpunku). Our supporting community partner is the organization Grocery Connect, who put on the snack intervention and printed the surveys for the children (Kenedi Houston). A senior physician and faculty member from UTSW also supported this project (Dr. Jaclyn Albin).