



TINY TASTERS: TROUT AND THE HOME FEEDING EXPERIENCE IN EARLY CHILDHOOD



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INTRODUCTION

Fish is a nutritious food rich in important nutrients for cognitive function and development in children. However, fish consumption by children remains below dietary guidelines in the United States¹.

AIM

The objective of this study was to further understand acceptance of trout in children aged 3-6 years old, and its relationship to at-home feeding experiences.

RESULTS

Table 1. Mean liking scores of 3 trout strains as assessed by a children's sensory panel.

| Trout Sample | Mean liking |
|--------------|-------------|
| CX | 2.3 a |
| Commercial | 2.2 a |
| LCX | 2.2 a |

NO SIGNIFICANT DIFFERENCES IN LIKING AMONG THE 3 TROUT STRAINS.



Table 2. Influence of variables on trout overall liking scores as assessed by a children's sensory panel and ordinal logistic regression models.

| Variable | Outcome |
|--|--|
| Children who struggled with <i>lumpy</i> food textures at-home (e.g. cottage cheese, mashed potatoes, oatmeal) | These children were more likely to think trout tasted Yucky p = 0.041 |
| Children who consumed high amounts of fish/seafood at home each week (mean response = 2.19 oz fish/week) | These children were more likely to think trout tasted Yummy p < 0.0001 |
| Children who regularly fished for trout during fishing season | These children were more likely to think trout tasted Yummy p = 0.017 |
| Children who licked their trout samples during sensory evaluation | These children were more likely to think trout tasted Yucky p = 0.006 |
| Children who visually examined their trout samples with their fork before eating | These children were more likely to think trout tasted Yucky p = 0.017 |



Children indicated overall liking of trout on a 3-point scale.

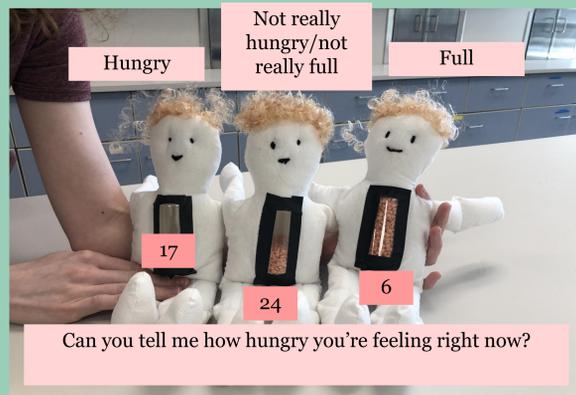


Trout Strains

Commercial Rainbow Trout: fish-meal diet containing fish oil (control)

CX Rainbow Trout: 100% plant-based diet

LCX Rainbow Trout: 100% plant-based diet containing flaxseed oil



METHODS

- Parent reported difficulty of 16 textures³
- Texture sensitivity classification²
- Fish consumed/week by child and parent
- How frequently family fishes

- Friedman's test examined differences in liking
- Ordinal logit regressions determined effect of home feeding experiences and eating behaviors on trout liking

Parents or caregivers completed a survey regarding at-home feeding experiences

Children (n = 50) aged 3-6 were recruited to evaluate trout

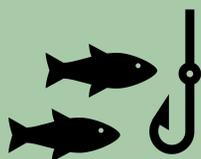
Statistical Analysis

Behaviors of children were recorded throughout the tasting activity

- Children indicated hunger level prior to the tasting activity
- Children indicated trout liking on 3-point scale (Yummy, Just-Ok, Yucky)

- Licking trout
- Touching trout with fork
- Spitting
- Touching trout with hands
- Refusal

CONCLUSIONS



Children who struggle with *lumpy* food textures may need additional support when introducing fish

Children who performed exploratory behaviors while eating were more likely to dislike trout and may need additional support

Increasing children's exposure to fish and seafood may also help improve their acceptance of trout

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