



Associations between snack food and demographic variables, family meal frequency and fruit and vegetable intake among 7-10 year old children living in rural communities

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BACKGROUND

- Children from rural areas have higher obesity rates.
- Snacks often includes low-nutrient dense foods.
- Snacking is common among children and is associated with higher obesity rates.
- Little is know about rural children’s snacking patterns.



OBJECTIVES

- Among rural children, examine associations between intake of different types of snacks and
 - Demographic characteristics
 - Family meal frequency
 - Fruit and vegetable (FV) intake

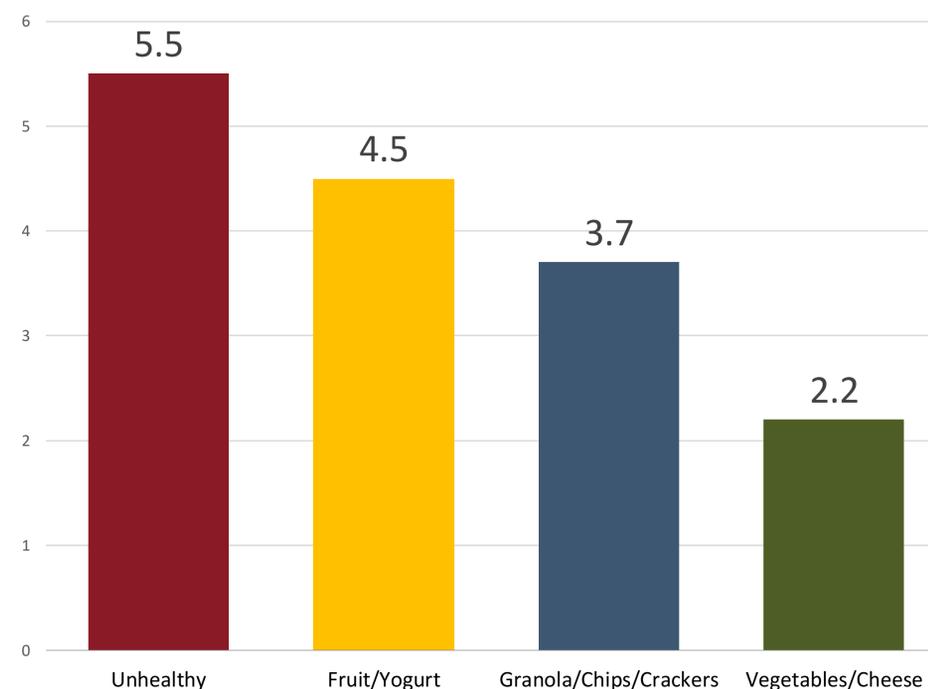
STUDY DESIGN/PARTICIPANTS

- Baseline data (2017/2018) were analyzed from 160 parent/child dyads in the NU-HOME study, a randomized controlled trial to prevent childhood obesity in rural Minnesota.
- Children were predominantly white (93%) and female (60%) with a mean age of 8.9 years and 28% received economic assistance (free/reduced school lunch or public assistance).
- Parents reported on their child’s daily snacking via text surveys on seven random evenings over a two-week period by answering Yes or No to whether their child ate each of 11 common snack foods.

STATISTICAL ANALYSIS

- Snacks were categorized into 4 groups using factor analysis:
 - Fruit/Yogurt (Fruit, yogurt, 100% juice)
 - Granola bars/Chips/Crackers/Cereal
 - Vegetables/Cheese
 - Unhealthy (Sugar-sweetened beverages, candy, baked sweets, ice cream)
- Responses for each food item were summed over 7 days to derive the score for each food group.
- Correlations / t-tests examined associations between number of snack in each category and demographics, family meal frequency and FV servings.

AVERAGE NUMBER OF SNACKS COSUMED WEEKLY



RESULTS

- Compared to children whose families did not receive economic assistance, children whose families received economic assistance:
 - Ate more Fruit/Yogurt for snacks (6.2 vs 4.5 snacks; p=0.02)
 - Ate less Unhealthy food for snacks (4.2 vs 6.0 snacks; p=0.02)
- Families who had more family meals reported their children ate fewer Unhealthy snacks (r=-0.25; p=0.009)
- Children who ate Fruit/Yogurt as snacks reported higher servings of daily FV intake (r=0.19; p=0.046).



CONCLUSION

- The finding that families receiving economic assistance ate healthier snacks than families who did not suggests promotion of healthy snacks is important for families of all incomes.
- Nutrition educators should encourage nutrient-dense snacks particularly among families who do not eat regular family meals.
- Promotion of fruit and yogurt as snacks may improve children’s overall dietary quality.



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