

Nutrition Concerns in a Sample of Northern Ontario Toddlers



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Acknowledgements

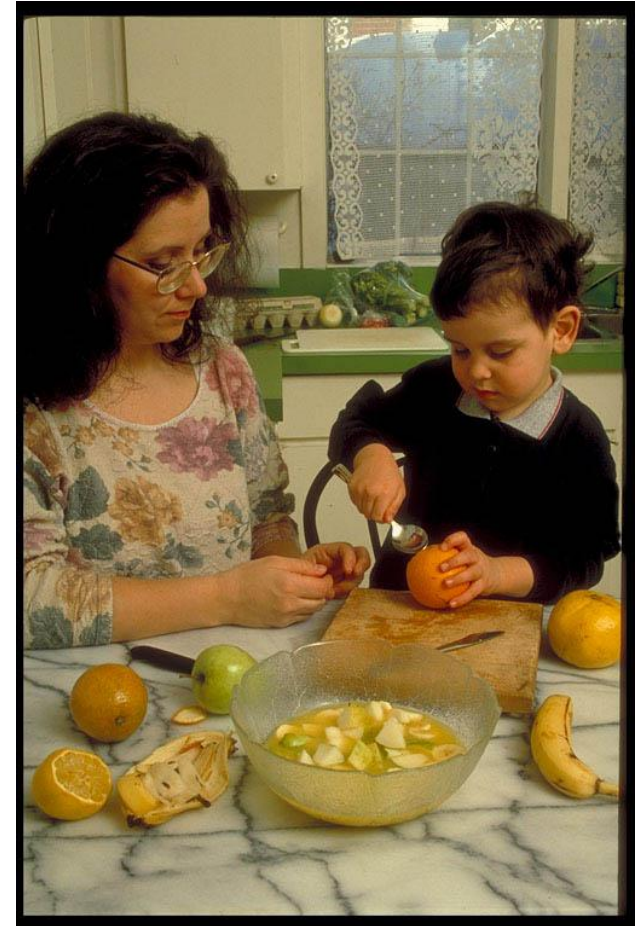


- Co-investigators
 - University of Guelph
 - Drs. Janis Randall Simpson and Heather Keller
 - Thunder Bay District Health Unit
 - Kim McGibbon
 - Sudbury & District Health Unit
 - Joanne Beyers
 - NODIP
 - Tammy Vachon, Jenna Campbell, Lee Rysdale-Sudbury
 - Riley Fulkerson, Stephanie Hill-Thunder Bay
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Presentation Outline

- Background
- Study Objectives
- Methodology
- Key Results
- Conclusions
- Questions



Nutrition Concerns

- Physical growth
 - Weight and height; parent's comfort level
- Food and nutrient intake
 - Types and amounts of foods eaten and how often
- Developmental and physical capabilities
 - Food allergies; oral motor skills; emotional maturity
- Physical activity
 - Indoors and outdoors; screen time
- Factors affecting intake and eating behaviour
 - Feeding environment; food security

Nutrition Concerns

- Eating Behaviours (TBDHU, 2009)
 - No servings of fruit (11 %), vegetables (28%), milk (20%), meat (16 %)
 - 21% “fast food” \geq once/week
 - 18% not hungry at meals due to drinking too much between meals
- Physical Growth
 - 21% of Canadian children aged 2-17 are overweight or obese (CCHS)
 - 21% preschoolers (3-5 yrs) (NutriSTEP, 2008)

Nutrition Concerns

- Feeding Environment
 - Eating in front of TV- almost 50% some/most of the time (TBDHU, 2009)
- Physical Activity
 - Screen time: 30% \geq 3 hrs/day, 40% at least 2 hours (TBDHU,2009)
 - Stroller use- \downarrow 1 day/wk of unstructured PA (HSC, 2011)



Nutrition Concerns

- Food Security
 - 19-21% sometimes/always had difficulty feeding their child because food is expensive (4% reported most of the time/always) (NutriSTEP, 2003, 2005)
 - 7% had difficulty most of the time/always- this increased to 35% if child was high nutrition risk (TBDHU, 2009)
 - Associated with depression in adults and children
 - Associated with behaviour problems in children

NutriSTEP®

- Parent-focused nutrition education and skill building program
- Nutrition risk screening index for preschoolers (3-5 years)
 - Multi-ethnic
 - 8 languages
 - Parent-administered (5 minutes)
- On-going collaborative practice-based research with University of Guelph and others
- Identified need for a toddler version (18-35 mo)



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Study Objectives

1. To describe the potential nutrition concerns in a Northern Ontario sample of toddlers.
2. To inform screening tool refinement and local public health nutrition programs.



Study Phases



- Content Validity (May-October 2010)
 - Parent focus groups; expert consultations
- **Refinement (Nov 2010-Feb 2011)**
 - **Key informant interviews with parents**
 - **Understanding of questions; clarity of language; accuracy of answers**
- Criterion Validity and Retest Reliability (May-Nov 2011)
 - 350 parents of toddlers across Ontario
- Valid and reliable questionnaire in English and French late 2011

Methodology

- Secondary data analysis from Provincial Tool Refinement Phase (n=107)
- Sample: 70 toddlers (18-35 months) from Northern Ontario communities:
 - Greater Sudbury
 - Thunder Bay
- Child nutrition concerns: parent responses to the 19 item draft questionnaire
- Demographic characteristics: an 8-item standardized questionnaire from Stats CAN
- Descriptive statistics (SPSS Version 18)

Question Stems



1. My child usually eats grain products:
2. My child usually has milk products:
3. My child usually eats vegetables and / or fruit:
4. My child usually eats meat, fish, poultry, or alternatives:
5. My child usually eats restaurant or take-out “fast food”:
6. My child usually drinks juice or flavoured beverages:
7. I have difficulty buying food to feed my child because food is expensive:
8. My child has problems chewing, swallowing, gagging, or choking when eating:
9. My child feeds his/her self:
10. My child drinks from a baby bottle:
11. My child eats pureed foods:
12. My child is not hungry at mealtimes:
13. My child usually eats: (*number of times per day*)
14. I let my child decide how much to eat:
15. My child eats meals while watching TV, or being read to, or playing with toys:
16. My child usually takes supplements:
17. My child usually watches TV, or uses the computer, or plays video games:
18. I am comfortable with how my child is growing:
19. I think my child: (*weighs too little / too much*)

Results-Demographics

Child's Age		Household Income	
18-24 mo	43%	Over \$90,000	36%
25-36 mo	57%	\$60,000-\$89,999	16%
Mother's Age		\$30,000-\$59,999	13%
20-29 yrs	34%	Less than \$30,000	23%
30-39 yrs	60%	No response	13%
40-49 yrs	6%	Maternal Education	
Maternal language		Graduated college / university	64%
French	24%	Some college / university	11%
English	64%	Graduated high school	25%

Results- Food Intake

- Foods of concern:
 - Vegetables and fruit - 27% \leq 2 times/day
 - Meat - 31% \leq a few times/week
 - Juice/beverages - 37% \geq 2 times/day; 30% none
 - Fast food-19% \geq once/week; 33% \leq once/month
- Other intake issues:

Question Stem	Sometimes/ Most of the time	Never
Supplement Use	27%	43%
Baby Bottles	19%	77%
Pureed Baby Food	11%	69%

Results-Other Factors

- Child decides amount of food eaten
 - 23% sometimes/rarely/never
- Distractions used
 - 36% sometimes/most of the time
- Food insecurity
 - 14% sometimes/most of the time
- Daily screen time
 - 33% \geq 2 hours
- Growth and weight concerns
 - 10% feel child should weigh more

Conclusions

- Some positive findings:
 - No supplements
 - No juice/sweetened beverages
 - No baby bottles
 - Limited fast food consumption
 - Increased child self-feeding
 - Low parental growth and weight concerns
- Limitations: small sample size; higher parent education and income - limits generalizability
- Further research warranted

Conclusions

- Sufficient concerns to support nutrition risk screening with toddlers
 - Targeted approach
 - Universal screening
- Increase parent knowledge
- Change parent and child behaviours
- Support optimal growth & development
- Reduce/prevent nutrition related chronic diseases

Conclusions

- Promote inter-professional collaboration
- Integrate with:
 - Existing provincial programs e.g. HBHC
 - The Enhanced 18 Month Screening Program and Rourke Baby Record
 - The Early Child Development and Parenting Resource System in Ontario
 - The nutrition priorities in the emerging Governance Model for a Child and Family Service System in Ontario



Northern Ontario
School of Medicine

Questions?

