Family Mealtime Observation Study (FaMOS)

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The Guelph Family Health Study

The Canadian Foundation for Dietetic Research

Objectives

- What do we know about parent feeding practices?
- The FaMOS Study
- Preliminary Results & Implications
- Questions

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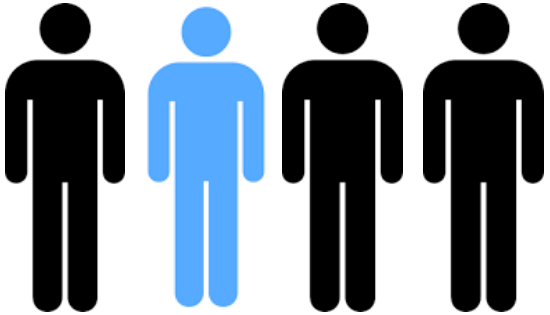
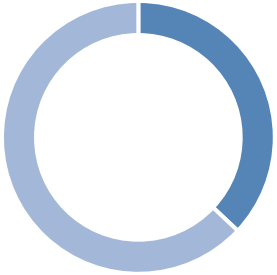


1 in 4

Canadian children have overweight or obesity

70

The percent of children aged 4-8 meeting Fruit & Veg recommendations



37% = percent of 4-8 year olds meeting dairy recommendations

More than 75% of 4-8 year olds have sodium intakes above the TUL

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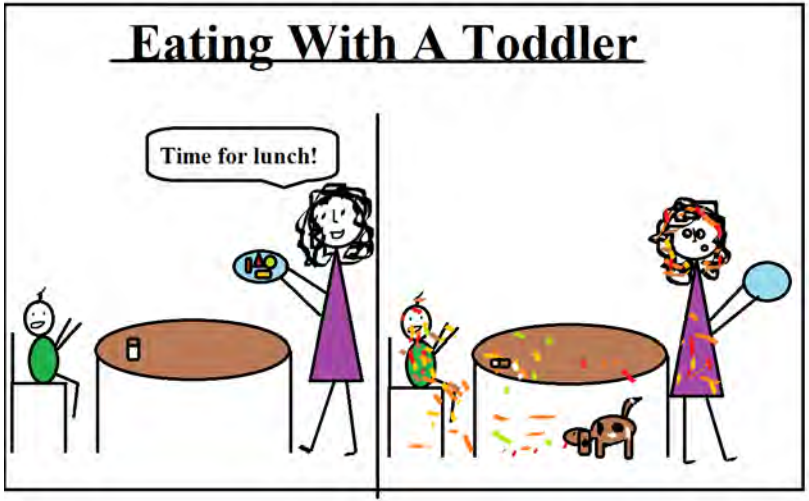
(Public Health Agency of Canada, 2012; Garriguet, 2004)



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http://www.howtobeadad.com/2015/27100/family-dinner-fowl-language-comics

Parental Feeding Practices: What do we know?

- Parental feeding practices: specific behavioural strategies that parents use to influence what, how much, or whether their children eat

- Parents feeding practices influence children's dietary intake and weight status
  - Highly controlling practices may undermine children's ability to self-regulate their dietary intake

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(Faith et al., 2004; Birch et al., 2003; Faith & Berkowitz et al., 2004; Johannsen et al, 2006)

Parental Feeding Practices: What do we know?

- The preschooler age group (3-5 years) is a critical time for intervention

- Results are equivocal, especially around restricting intake

- Key Limitations:
  1) Reliance on parent report
  2) Overlooking the general family environment

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(Campbell et al., 2010; Birch et al., 1995; Skinner et al., 2002; Skouteris et al., 2011; Ventura et al., 2008)

The Family Mealtime Observation Study (FaMOS)

Overall Aim:

To address the limitations of existing research through a cross-sectional study that will examine the associations between observed parental feeding practices and nutrition risk among preschoolers aged 3-5 years in a sample of 75 Canadian families

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The Family Mealtime Observation Study (FaMOS)

Objectives:

1. To examine cross-sectional associations between observed parental feeding practices and preschool children's nutrition risk score (NutriSTEP®)
2. To examine how aspects of the general family environment, moderate the associations between parental feeding practices and children's dietary intake and nutrition risk

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FaMOS Methods

- Recruitment
  - Facebook, GFHS, OEYC

- Eligibility
  - At least one child between 2-5 years
  - Ability to understand and speak English during meals
  - Individual who primarily fed child was able to participate

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FaMOS Methods

Home Visit #1

- Study consent
- Video-camera set-up/demonstration
- Height and weight measurements

3 Videotaped Family Meals

Parent Survey

- Completed by both parents in two-parent families

Home Visit #2

- Camera pick-up & incentive

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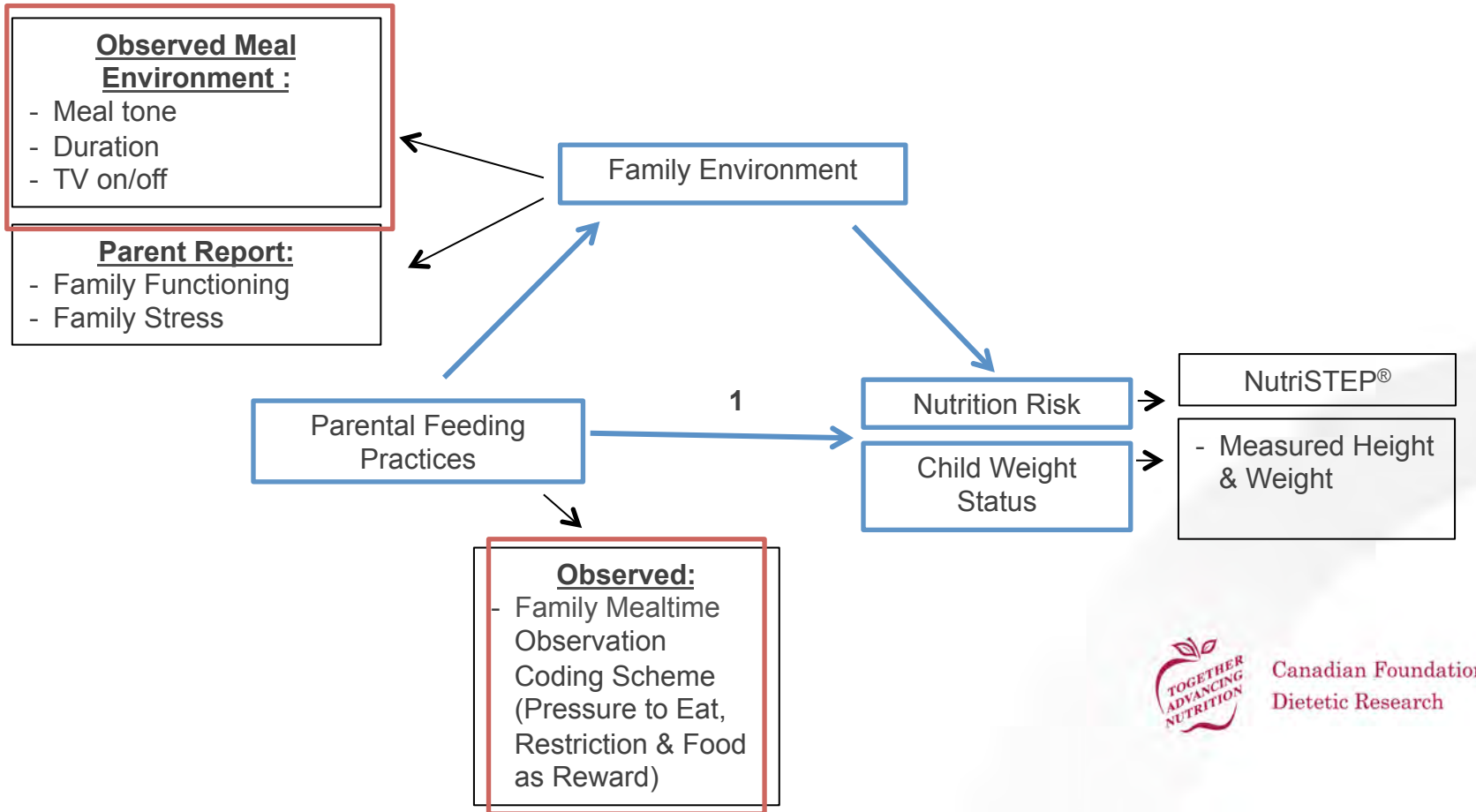
FaMOS Measures



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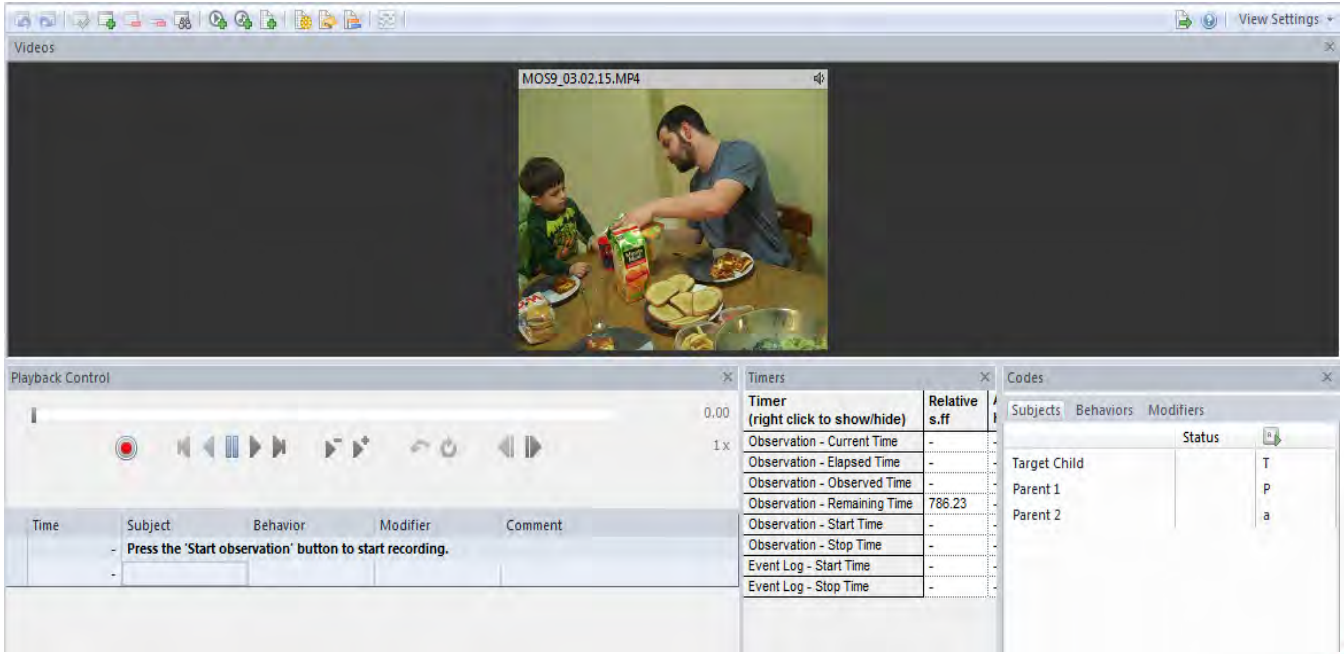
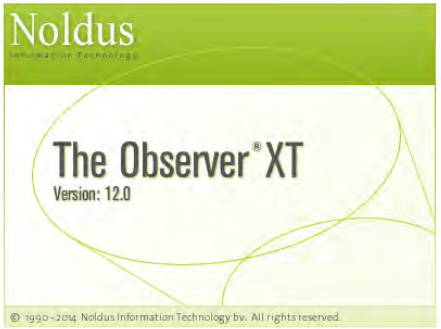
FaMOS Methods: Video Coding

- The Family Mealtime Coding Scheme





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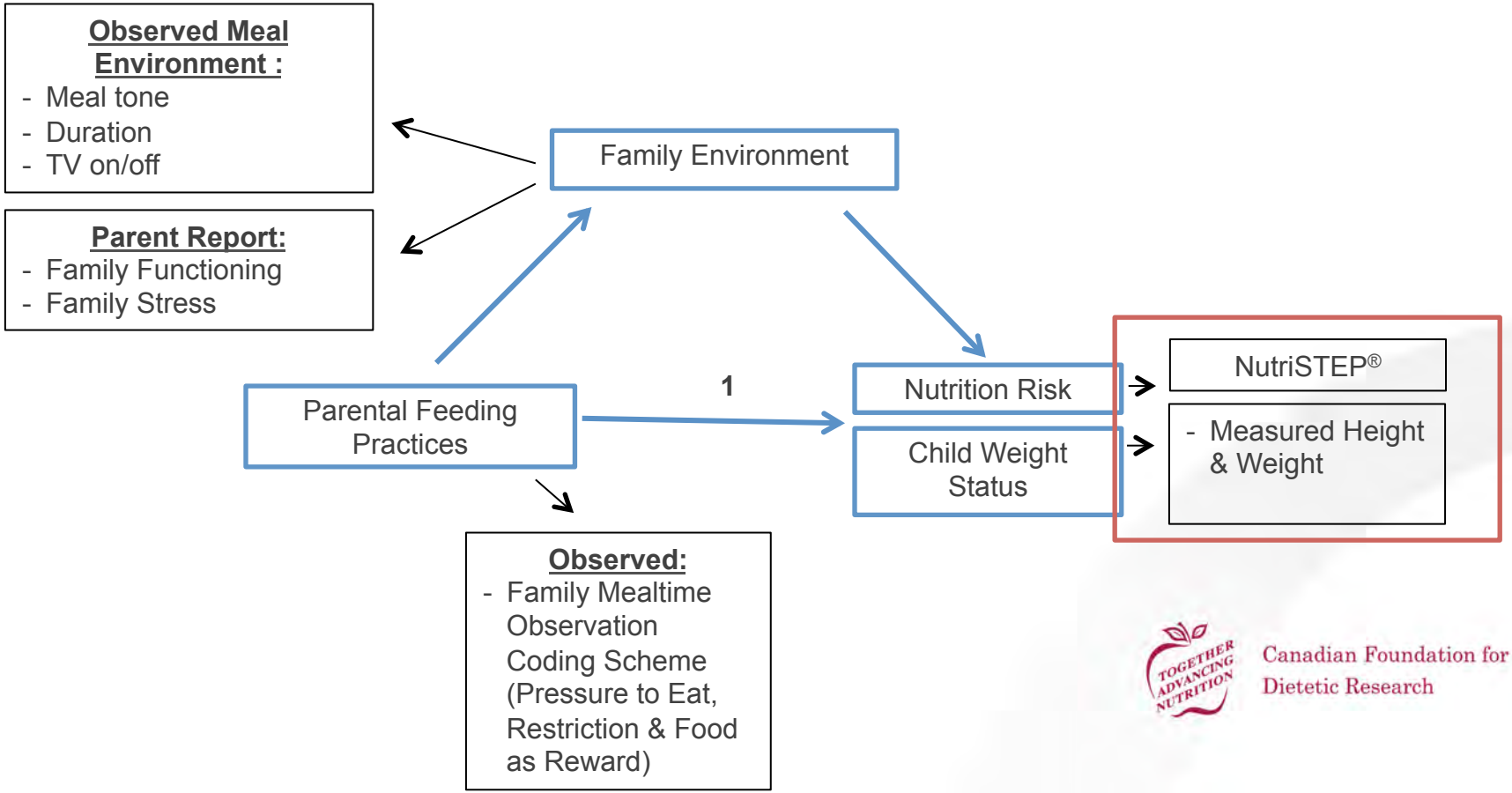
(Haycraft & Blissett 2008)

FaMOS Measures



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FaMOS Measures

- Measured Height and Weight

- NutriSTEP®
  - 17 item questionnaire used to assess eating habits and identify nutrition problems in preschool aged children (3-5 years)
  - individual question scores are tabulated to determine three levels of risk, low, medium and high

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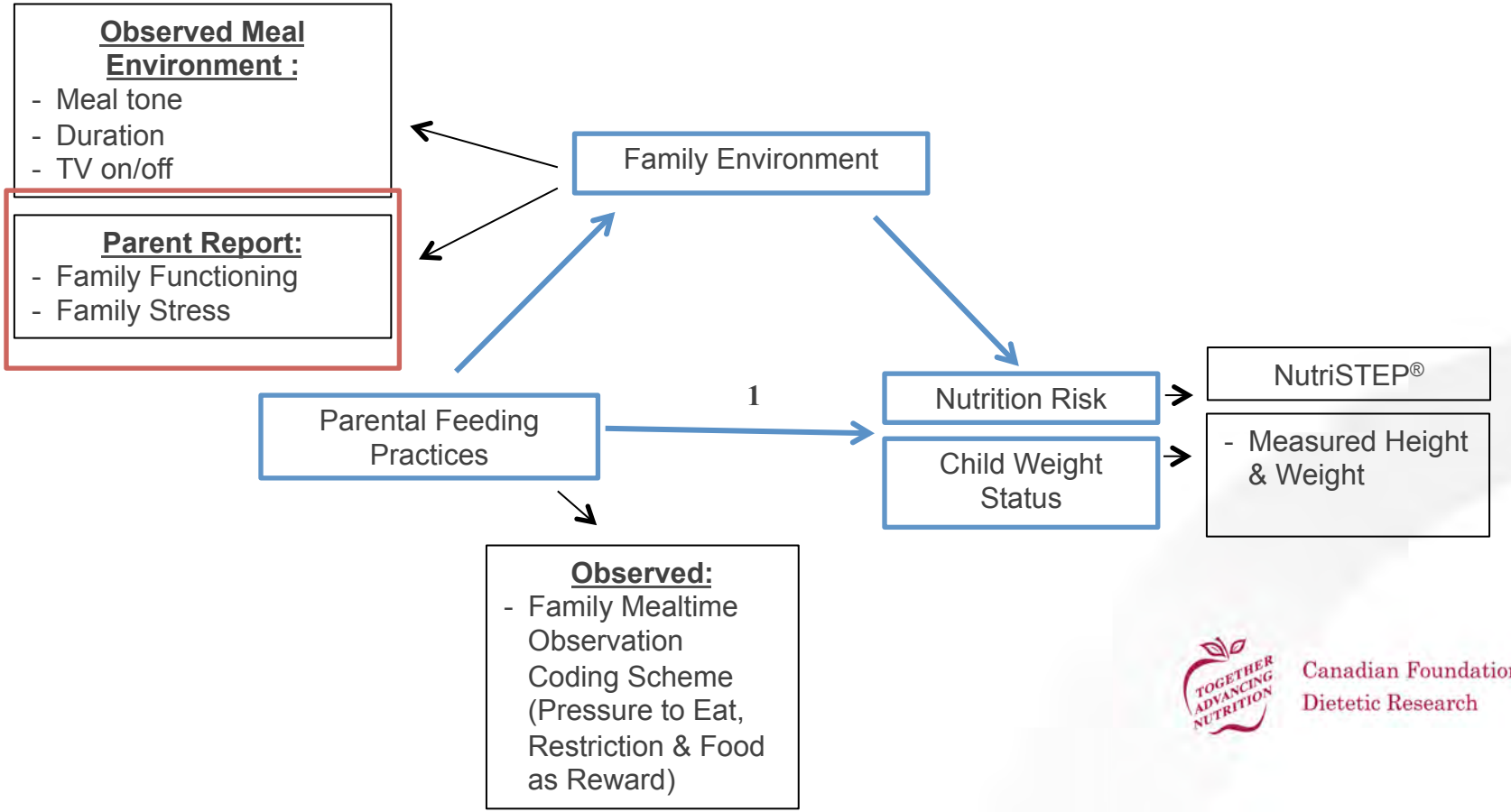
(Randall Simpson et al., 2008)

FaMOS Measures



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FaMOS Measures

- Family Functioning:
  - McMaster Family Assessment Device- General Functioning Subscale
    - *"Planning family activities is difficult because we misunderstand each other."*

- Family Stress:
  - Parenting Stress
    - Parenting Stress Index- Short Form- Parent Distress Subscale
    - *"Since having this child, I feel that I am almost never able to do things that I like to do"*
  - General Stress
    - *"Using a scale from 1 to 10, where 1 means 'no stress' and 10 means 'an extreme amount of stress,' how much stress would you say you have experienced in the last year?"*

(Epstein et al., 1983; Reitman et al., 2002)

FaMOS Timeline

July 2016: Recruitment for FaMOS begins

January 2017: REB approval for broad recruitment

October 2017: Study Visits Completed

November 2017: Data Analysis

August 2018: Completion of PhD

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FaMOS Results: Feasibility

- **Feasible**
  - 148 families expressed interest
    - 112 completed eligibility (6 ineligible)
    - 77 completed FaMOS

- **Acceptable**
  - 100% of participants reported they were ‘comfortable’ or ’very comfortable’ filming their meals
    - Only 1 family did not complete filming
  - 100% of participants reported the study protocol was easy to follow

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FaMOS Results: Participants

- N= 77 families (147 parents; 70 fathers, 77 mothers)
- 83.6% of parents identified as white
  - 18% of parents born outside of Canada
- Average Parent BMI: 26.9
- Average age of Target Child: 3 years
- 54% Female

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FaMOS Results: Reactivity

- Reactivity is a concern in research applying direct observation.

Do children's behaviours change over the course of 3 observed meals?

- 15% of the families (n=12; 36 observations)
- All 3 observations for each family were coded separately by two observers (85% agreement).

FaMOS Results: Reactivity

Table 1: Descriptive statistics and Analysis of Covariance between child camera interactions (N= 36 observations; 12 families)				
	Observation 1	Observation 2	Observation 3	P value
	Mean (SD)	Mean (SD)	Mean (SD)	
Average Camera Interactions	8.17 (8.871)	3.5 (2.5)	2.17 (1.34)	0.026

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FaMOS Results: Parent Feeding Practices

- Pilot Results
  - N=12 families (23 parents; 11 fathers)

- Videos coded using the Family Mealtime Coding System (FMCS)

- **Inter-rater reliability:** kappa= 0.89

- **Average length of meal:** 22.04minutes ± 6.83minutes
- **Ease of Child Feeding:** Mean= 4 (0.78)
- **Meal Tone:** Mean= 2.29 (0.54)

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(Haycraft & Blissett, 2008)

FaMOS Results: Parent Feeding Practices

- Pilot Results
  - N=12 families (23 parents; 11 fathers)

- No association between mothers reported and observed feeding practices

- Mothers verbally pressured child to eat significantly more than fathers
  - Mothers (μ=5.08 $\pm$ 3.45), Fathers (μ= 2.50 $\pm$ 1.71), p= 0.05

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(Haycraft & Blissett, 2008)

FaMOS: Next Steps

- Complete Video Coding
  - Assess reactivity in parent feeding practices over 3 observations
- Examine the associations between observed parent feeding practices and child nutrition risk
- Examine how aspects of the general family environment, moderate the associations between parental feeding practices and children's nutrition risk

Conclusions

- FaMOS has been found to be feasible and acceptable among parents of preschool-aged children
- The development of family-based interventions currently involves a lot of guess work because there is no clear understanding of how parental feeding practices influence children's dietary intake
- FaMOS includes both mothers and fathers for a more complete picture of family meals
- Findings from FaMOS will help develop 'best practices' for feeding young children

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