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Prevention of Pediatric Obesity: A Focus on the First Two Years

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Prevention of Pediatric Obesity: A Focus on the First Two Years

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INTRODUCTION

- Overweight and obesity rates among children have tripled in the last 20 years and overweight is increasingly recognized as a problem during infancy.³
- Rapid infancy weight gain is a known risk factor for overweight/obesity.⁶
- Pediatric obesity is linked to: hyperlipidemia, hypertension, type 2 diabetes, sleep apnea, fatty liver disease, and mental health problems.²
- There has been evidence that shows behaviors present in high-risk obesity groups start at a young age, suggesting that the need for intervention should be focused on the very early phases in a child's life.⁵
- Pediatric obesity rates are highest among Black and Hispanic populations, as well as families living in poverty.⁴
- Breastfeeding enhances and nurtures the infant's ability to self-regulate the sense of hunger and satiety.¹

OBJECTIVE/AIMS

- This IRB-approved ongoing research study will investigate whether the introduction of a new clinical model, involving a dietician providing nutrition counseling at each well visit from birth to 2 years of age, will affect rates of obesity at the age of two between intervention infants and matched peers.
 Specifically, this study will:
 - Assess BMI and rates of overweight and obesity at age 2 years

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METHODS

Key and ancillary personnel trained before patient contact to ensure proper scheduling and compliance with consent procedures

Figure 1. A model of events within the study emphasizing a team-based approach

Study Coordinators received informed consent from mothers in postpartum. A baseline survey regarding factors affecting the infant's feeding environment was completed.

Research Team
PI Kimberly Brown
Clare M. Lenhart PhD MPH
Amanda Walker RD LDN
NORI* Team

Participants are seen on a normal well-visit schedule consistent with AAP guidelines. The intervention group receives a nutrition consultation from a dietician at each visit.

Follow-up surveys are administered at 6, 12, and 18 months (+/- 30 days)

*NORI stands for Network Office of Research & Innovation



Statistical tests will be

run to achieve the

study's aims once all

data is collected

Current Status:

Member of study team extracts

information from the electronic

medical record, including

weight, length, provider, and

other detail visits to enter into

database for analysis

Figure 2. Infant showing symptoms of obesity, by E. Fudge, D. von Allmen, K. Volmar, and A. Calikoglu, 2009, International Journal of Pediatric Endocrinology, p.1-4.

OUTCOMES

- Over 270 total participant records entered into REDcap database
- Almost all of the participants have received their 12 month visit, a few are up to 18 months
- Existing records will produce preliminary data while the team continues to update after each well visit

RESULTS

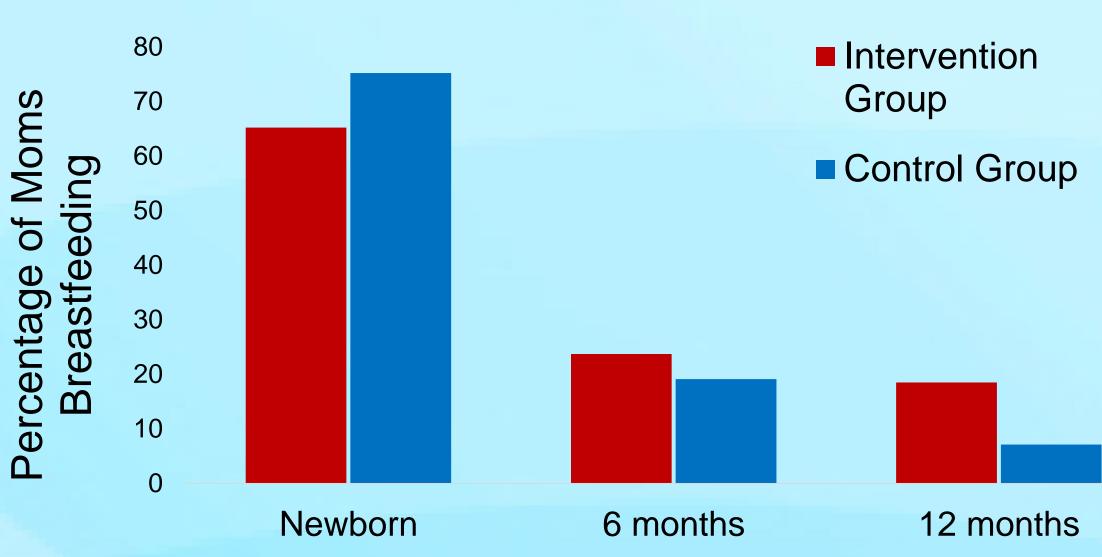


Figure 3. Graph reflecting the percentages of moms breastfeeding at each time point. These responses came directly from the surveys. The intervention group has less of a decline of breastfeeding.

DISCUSSION

- Benefits:
 - The intervention provides a dietician onsite instead of having the patient travel elsewhere

Age of Participant

- Residents establish continuity by serving as background primary care providers
- Limitations:
 - Patient no-shows
 - External factors affecting scheduling
- Future Steps:
 - Continue with data extraction until all participants reach 2 years of age

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