



Teachers “Eating Smart & Moving More”: Development of a Program Assistant Guide for the Head Start Audience

Kelly Godwin, RD, LDN,¹ Lorelei Jones, M.Ed.,² Susan Chase, M.Ed.,² & Virginia C. Stage PhD, RDN, LDN¹ (mentor)

¹Department of Nutrition Science, College of Allied Health Sciences, East Carolina University, Greenville, NC; ²Expanded Food and Nutrition Education Program, The Cooperative Extension, North Carolina

INTRODUCTION

- More than 20% of all preschool-age children in the United States are overweight or obese¹ and lower income and minority children are disproportionately affected.²
- Approximately 1/3 of children entering Head Start are classified as overweight or obese³.
- Since overweight/obesity risk factors are more easily modified in early childhood and low-income children are most vulnerable², the Head Start environment is a prime location for obesity-related prevention and intervention programs.
- Evidence also suggests that nutrition/physical education in the classroom setting can lead to improvement in children's eating habits and long-term weight status, making teachers important partners in efforts to encourage healthy lifestyles⁴.
- However, Head Start teachers may not be prepared to serve as positive role models for children due to their own limited knowledge of healthy eating and physical activity⁵.
- Effective teacher education in nutrition and physical activity can increase teacher confidence, awareness, motivation to improve their own lifestyle, and ultimately, empower teachers to serve as agents of change in their classrooms and local community aiding in the prevention of overweight/obesity⁶.
- At this time, evidence-based professional development targeting food/nutrition and physical education for Head Start teachers is not available in Eastern NC (ENC)⁵.

PURPOSE

- The purpose of this project was to develop an evidence-based teaching guide for Expanded Food and Nutrition Education Program (EFNEP) regional Program Assistants (PAs) in rural ENC to educate Head Start teachers to become advocates of healthy living for their children.

METHODS

- Six lessons from the existing EFNEP curriculum, *Families Eating Smart & Moving More*, were selected for PAs to teach Head Start teachers in ENC (Table 1).
- PAs delivered the 6-lesson nutrition education and physical activity series to Head Start teachers in Bertie and Lenoir Counties to provide context to the guide's development.
- Participating teachers received incentives in the form of basic cooking utensils, a cook book, walking DVD, and Continuing Education Units.
- After implementation, participating EFNEP PAs and Head Start teachers provided feedback in the form of journals and phone interviews on how to best implement the program in the Head Start environment.
- Teacher journals documented teacher reflections post-lesson and included insight on content, delivery process, personal and professional development as a result of each lesson (Table 2), and asked for strategies to apply lessons learned into nutrition messages for the classroom.
- Each of the two participating PAs in Bertie and Lenoir County and their district supervisor (n=3) were interviewed providing feedback on barriers, facilitators, and motivators for implementing the program in the Head Start setting.
- All interviews were audio recorded and transcribed verbatim.
- Qualitative data was reviewed and emergent themes identified. Themes were used to inform final revision of the PA guide.
- This study was approved by the ECU IRB (UMCIRB 16-001996).

Table 1. Six lessons from *Families Eating Smart Moving More* selected for ENC Head Start teachers

Lesson Title	Lesson Objectives	Key Messages
Fix It Safe	1. Identifying food safety 2. Using kitchen safety for kids 3. Setting food safety goals	1. Clean hands and surfaces 2. Avoid cross-contamination 3. Chill foods promptly
Shop the Best for Less	1. Understanding nutrition label 2. Learning nutrition facts, ingredients and portion sizes	1. Use labels to compare 2. Use labels for smart portions and healthy choices
Shop for Value - Check the Facts	1. Creating a shopping list 2. Selecting best buy with unit pricing and coupons	1. Always shop with a list 2. Use unit pricing and coupons to get the most for your money
Plan: Know What's for Dinner	1. Creating favorite meal list 2. Planning weekly menu	1. Save time/money by planning weekly meals
Choosing More Fruits & Vegetables	1. Including a variety of fruits and vegetables (FV) in diet 2. Saving money on FV	1. Eat FV at most meals/snacks 2. Eat variety of colors each day 3. Make half your plate FV
Choosing to Move More Throughout the Day	1. Identifying importance of PA 2. Learning recommended PA 3. Incorporating PA each day	1. Choose to be active 2. PA can be done at any time 3. Set small goals to increase PA



RESULTS

- Participating Head Start teachers (n=35) were 100% female. Average age was 46 (SD=9.6) with 80% being African American, 14% Caucasian, 3% Hispanic, and 3% Other.
- Average years teaching was 12 years (SD=8.2) and 54% of teachers had at least a 4-year degree.
- Of the 35 teachers who started the program, only 22 completed all 6 lessons (62.8% completion rate).
- Reasons for not completing the program primarily related to time constraints.
- A total of 132 journals (1/lesson/teacher) were submitted providing feedback on content, delivery process, and personal/professional development as a result of each of the 6 lessons (Table 2).
- Emergent themes identified from ENFEP PA and District Supervisor interviews are reported in Figure 1.

Table 2. Themes identified across journal entries from Head Start teachers in *Teachers Eating Smart and Moving More* (n=22).

	PROCESS	PROFESSIONAL DEVELOPMENT (PD) ^a	PERSONAL DEVELOPMENT ^b
Fix It Safe	<ul style="list-style-type: none"> Strengths: Simple, easy recipe-meat loaf Areas for Improvement: Demonstrate checking temperatures 	<ul style="list-style-type: none"> PD: When to put away food to prevent bacterial growth Classroom: Proper hand washing Families: Proper food handling to prevent sickness 	<ul style="list-style-type: none"> Personal Impact: Confident safe handling of food around children Health Behaviors/Barriers: Better food handling practices; cost
Shop the Best for Less	<ul style="list-style-type: none"> Strengths: Brief lesson, to the point Areas for Improvement: N/A 	<ul style="list-style-type: none"> PD: Being mindful of food budget Classroom: Talk to children about importance of spending wisely Families: Help stretch food dollar 	<ul style="list-style-type: none"> Personal Impact: Shop for quality at an affordable price Health Behaviors/Barriers: Shopping smart; life
Shop for Value - Check the Facts	<ul style="list-style-type: none"> Strengths: Label reading demonstration Areas for Improvement: N/A 	<ul style="list-style-type: none"> PD: Providing healthy choices Classroom: Expose children to label reading by demonstrating Families: Key words on labels 	<ul style="list-style-type: none"> Personal Impact: Select smart choices based on food label Health Behaviors/Barriers: Smarter choices; lack of time
Plan: Know What's for Dinner	<ul style="list-style-type: none"> Strengths: Informative instructor emphasizing importance of planning Areas for Improvement: : N/A 	<ul style="list-style-type: none"> PD: Time management and proper planning for making smart choices Classroom: Share dinner plans Families: Emphasize meal planning for smart meal time decisions 	<ul style="list-style-type: none"> Personal Impact: Ability to plan ahead Health Behaviors/Barriers: Better time management; busy schedules
Choosing More Fruits & Vegetables	<ul style="list-style-type: none"> Strengths: Fruit salad recipe Areas for Improvement: Better explanation of portion control 	<ul style="list-style-type: none"> PD: How to be a healthy role model for children Classroom: Show different FV Families: Teach importance of FV; juice does not count 	<ul style="list-style-type: none"> Personal Impact: Confidence in handling picky child Health Behaviors/Barriers: Awareness of FV consumption; cost
Choosing to Move More Throughout the Day	<ul style="list-style-type: none"> Strengths: Entire lesson Areas for Improvement: N/A 	<ul style="list-style-type: none"> PD: Knowledgeable of PA recommendation Classroom: Simple PA activities Families: Importance of PA 	<ul style="list-style-type: none"> Personal Impact: Must be a role model Health Behaviors/Barriers: Can exercise anywhere; self discipline

^aHow does this learning experience contribute to my professional development? (**PD**) How can I apply these concepts to the classroom/families? (**Classroom/Families**); ^bWhat does this learning experience mean to me? (**Personal Impact**) How can I apply these concepts to change my personal health behavior? (**Health Behaviors**) What barriers might I experience? (**Barriers**)

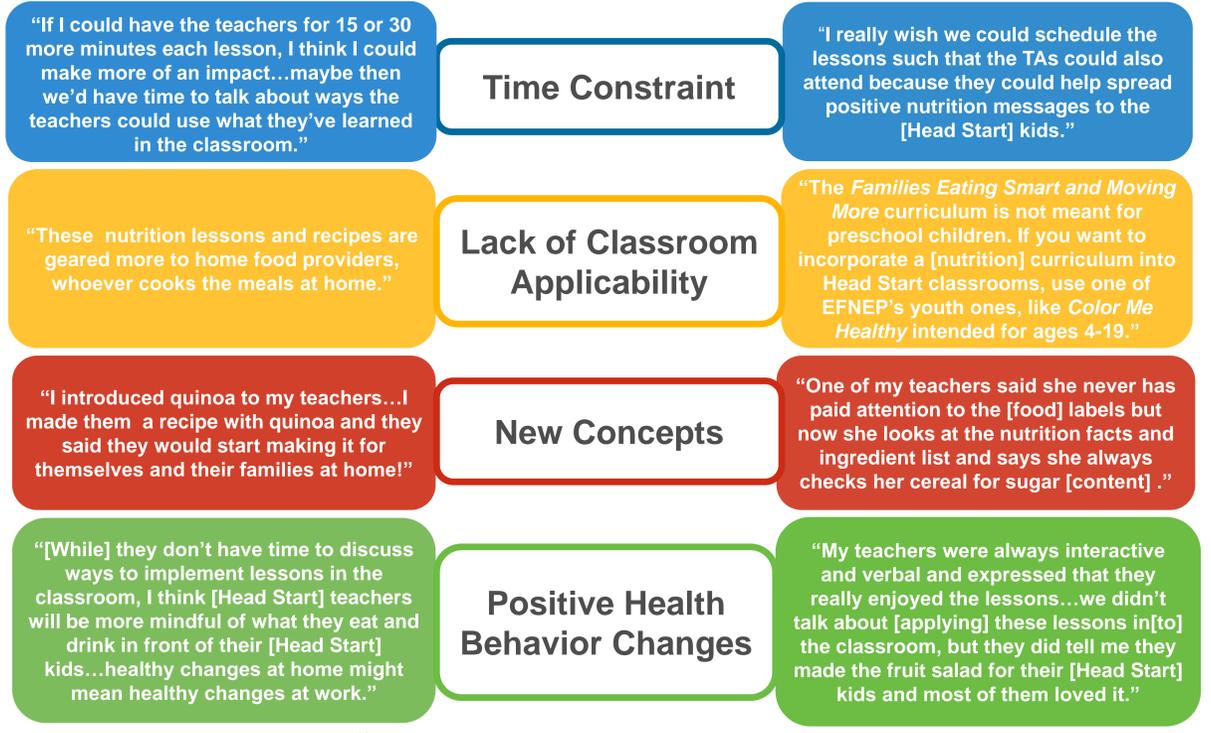


Figure 1. Themes identified from PA/Supervisor interviews and supporting quotes



DISCUSSION & FUTURE APPLICATION

- Research indicates teachers are more likely to implement nutrition and physical education if they feel comfortable with their own understanding of the subject, indicating this project has a high capacity for long-term sustainability⁶.
- The purpose of this project was to develop an evidence-based teaching guide for EFNEP regional PAs to use in rural ENC Head Start Centers.
- Data from PA interviews and teacher journals provided content for the PA guide and allowed researchers to identify concepts that needed to be clarified, modified, or omitted altogether in the final PA guide.
- The perceived barrier, lack of classroom applicability, reported by PAs suggests that researchers need to clarify the purpose and intention of the intervention; PAs expressed concern that the 6 lessons were for adult audiences only and could not be incorporated into the classroom setting; it is vital that the guide clarifies the intervention is intended to educate Head Start teachers to become advocates of healthy living for their classroom children.
- Interestingly, lack of classroom applicability was not a perceived barrier amongst most Head Start teachers, indicating that teacher journal reflection questions were successful in encouraging teachers to brainstorm classroom application (Table 2).
- In addition, themes identified from PA feedback indicate the following need to be emphasized within the guide as further development occurs:
 - Time constraint (as a barrier):** Utilize resources and plan ahead to make the most of limited time is crucial; i.e. prepare recipe ahead of time.
 - Lack of classroom applicability (as a barrier):** Brainstorm ahead of time strategies for applying concepts learned into classroom; i.e. teach children to sing ABC's twice while washing hands; role model healthy behavior by drinking only water in the classroom.
 - New concepts (as a facilitator):** Continuously explore different ways to present material to maintain audience interest; i.e. use a variety of visual aids to prevent monotony.
 - Positive health behavior changes (as a motivator):** Constant encouragement and small rewards for healthy behavior change will keep teachers motivated to be healthy role models for their children; i.e. challenge teachers to set goals, those who follow through with goal(s) will be entered to win a health-related prize for the classroom.
- EFNEP will use the guide to train PAs in other counties to help Head Start teachers improve their personal knowledge and promote healthy living amongst children and families they serve.

REFERENCES

- Ogden, C. L., Carroll, M. D., Kit, B. K., & Flegal, K. M. (2014). Prevalence of childhood and adult obesity in the United States, 2011-2012. *Journal of the American Medical Association*, 311, 806-814.
- Singh, G.K., Siahpush, M., & Kogan, M.D. (2010). Rising Social Inequalities in US Childhood Obesity, 2003-2007. *AEP*, 20(1), 40-52.

**Additional references available in handout form.

ACKNOWLEDGEMENTS

EFNEP/Stage Research Team
Engagement of Scholarship Academy Grant
Study participants

Contact Information:
Kelly Godwin:
godwink10@students.ecu.edu