More PEAS Please! Teaching Head Start Teachers How to Integrate Food-based Learning into Preschool Science

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BACKGROUND

- Dietary quality is a driver of poor school readiness outcomes among preschool (3-5 years) children from low-resource backgrounds.
- HS teachers promote positive dietary behaviors in children through food-based learning (FBL) but face barriers to FBL, such as limited time and competing priorities.
- Prior research suggests these barriers could be overcome by integrating FBL into other learning domains (e.g., science, language) to simultaneously impact children's dietary quality and school readiness outcomes. Early childhood teachers have also expressed a need for professional development in this area.

Study Aim

Assess HS teachers perceptions of programmatic barriers, supports, and impact on science teaching after participating in the More PEAS Please! Program.

METHODS

- Teachers eligible if ≥18 years, employed as a lead or assistant teacher in HS, and participating in More PEAS Please!, a multi-level intervention focused on improving children's dietary quality and school readiness through early exposure to healthy foods in high-quality science learning environments.

Evaluation Tools:

- Formative surveys after each of the 6 Learning Modules
- Summative survey at the end of the program
- In-depth, semi-structured telephone interviews using phenomenological methods at the end of the program

More PEAS Please! Program Components:

- 1-day Pre-Service Workshop
- 6 Learning Modules
- 16 FBL Activities
- Online Professional Learning Communities

RESULTS

- 23 female HS teachers from 4 centers in 3 Eastern North Carolina counties participated in the PEAS program
- Race: Black/African American (87%) or White (4%)
- Age: 46 years (SD 11.53)

Formative Evaluation:

- Time was a significant barrier
- Children's interest was a significant support
- 83% of teachers completed all formative surveys

Summative Evaluation:

- Teaching Videos & Guide were most helpful resource
- Teaching Kit was most valuable incentive
- 79% of teachers completed summative survey

Qualitative Evaluation:

- Surprised by children's interest in healthy foods during program
- All teachers rated PEAS as "excellent" or "good" and were willing to recommend PEAS to other teachers

DISCUSSION & CONCLUSIONS

- Teachers' were surprised by children's science capabilities which may reflect their beliefs and self-efficacy about science education in early childhood.
- Teachers emphasized the effect of programmatic support as critical for their success. Future dissemination should consider sustainable ways to provide support to ensure teacher retention, satisfaction, and success.
- Responsiveness to teacher needs was critical for success, including the conversion of on-demand learning modules to paper and providing 1-on-1 coaching.
- Teachers wanted more variety of fruits and vegetables in the program. Future research is needed to better understand the effects of repeated exposure to a variety of vegetables.

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- Evaluation Tools:
  - North Carolina State University, East Carolina University, University of North Carolina Greensboro, North Carolina Agriculture & Technology State University, Partner Head Start Program