Child Health Initiative for Lifelong Eating and Exercise (CHILE) Plus

University of New Mexico Prevention Research Center

Overview

The Child Health Initiative for Lifelong Eating and Exercise (CHILE) Plus is a multi-component nutrition and physical activity education program for preschool age children and their families. CHILE Plus is the dissemination project of CHILE, a randomized control trial conducted by the University of New Mexico Prevention Research Center (UNM PRC). CHILE Plus is based on the socioecological model and includes 6 components that fit into this model: the classroom curriculum, staff professional development, food service, family engagement, grocery store collaboration, and partnership with local health care providers and Women, Infants and Children (WIC) program providers. Target Behavior: Healthy Eating, Physical Activity and Reducing Screen Time, Food Insecurity/Food Assistance Intervention Type: Direct Education, PSE Change

Intervention Reach and Adoption

CHILE Plus primarily works with Head Start and licensed child care centers that enroll predominantly Latino and/or American Indian children between the ages of three and five. Mothers are the primary adult audience, although it is recommended to include fathers and other caregivers, particularly grandparents who are raising their grandchildren, in adult educational activities. Currently CHILE Plus is implemented in half of the Head Start programs in New Mexico. CHILE Plus integrates SNAP-Ed efforts with Head Start programs, providing a braiding of nutrition services for vulnerable low-income children and their families throughout New Mexico. Setting: Child care (Learn), Community (Live), Indian Tribal Organizations, Retail (Shop/Eat) Target Audience: Preschool (<5 years), Parents/Mothers/Fathers Race/Ethnicity: Special focus on Latinx and American Indian communities and families
Intervention Components

CHILE Plus includes an evidence-based nutrition and physical activity curriculum for direct education and multiple PSE components. Based on the socio-ecological model, CHILE Plus includes preschool aged children enrolled in early childcare education settings and their families, teaching and food service staff, local health care providers, and local grocery stores. CHILE Plus uses a multi-modal learning approach to include in-person professional development training coupled with the online learning collaborative for teaching and food service staff.

Intervention Materials

CHILE Plus includes:

- **Curriculum**: 64 nutrition lessons designed to be carried out over the course of 2 years and 115 structured physical activities, all developmentally appropriate for children aged 3-5 years
- **CHILE Plus Family Engagement Materials**: nutrition and physical activity newsletters, activities, and recipes

Intervention Costs

Materials available at no cost.

Evidence Summary

In 2015, an evaluation of CHILE Plus found:

- CHILE Plus participants had a slight (.17 servings) increase in fruit and vegetable consumption from baseline to follow-up, but the difference wasn’t statistically significant.
- CHILE Plus participants had a decrease (.69 days) of days when half the plate was fruits and vegetables from baseline to follow-up. The decrease was statistically significant (p<.05).
- There was an association between the frequency with which children helped prepare meals and the average servings of fruits and vegetables per day. Children who helped prepare meals at least once per day consumed significantly more fruits and vegetables than children who almost never helped prepare meals.

In 2019, CHILE Plus teachers reported conducting 1,227 CHILE Plus classroom nutrition lessons, offering 17,225 tasting opportunities. Target foods were served during a meal or snack in 86.5% of all weeks reported. A majority (97.4%) of all classroom days in session reported at least 30 minutes of structured physical activity, and 31.4% reported 60 minutes or more, an average of 49.6 minutes per day of structured PA. Published research on CHILE include the following:
- CHILE: an evidence-based preschool intervention for obesity prevention in Head Start
- Integrating formative assessment and participatory research: Building healthier communities in the CHILE Project
- Effects of an Obesity Prevention Intervention on Physical Activity Among Preschool Children: The CHILE Study
- CHILE: Outcomes of a group randomized controlled trial of an intervention to prevent obesity in preschool Hispanic and American Indian children
- The impact of the CHILE intervention on the food served in Head Start centers in rural New Mexico
- Cross-sectional relationships between household food insecurity and child BMI, feeding behaviors, and public assistance utilization among Head Start children from predominantly Hispanic and American Indian communities in the CHILE study
- Effect of WIC food package changes on dietary intake of preschool children in New Mexico

**Evaluation Indicators**

Based on the SNAP-Ed Evaluation Framework, the following outcome indicators can be used to evaluate intervention progress and success.

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<th>Readiness and Capacity – Short Term (ST)</th>
<th>Changes – Medium Term (MT)</th>
<th>Effectiveness and Maintenance – Long Term (LT)</th>
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<td>Sectors of Influence</td>
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**Evaluation Materials**

CHILE Plus evaluation materials include:

- Online module checklists, wherein teachers report weekly completion of specified nutrition lessons; how many children were present; how many tasted the food; minutes of structured physical activity per day, and any comments.
- Professional development evaluations, completed at each session and analyzed for appropriateness, fit, and to identify additional training needs.

**Additional Information**
Website: The CHILE Plus website (https://prc.unm.edu/chile-plus/) includes the CHILE Plus curriculum, family engagement materials, online module checklist, a training video, and more. Contact Person: Sally Davis, PhD Principal Investigator, Director 505-272-4462 SDavis@salud.unm.edu