



Mental & Physical Health Impacts of Garden Education, Food Systems Curriculum, and Hands-on Cooking Demonstrations on Children & Adolescents

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Introduction

The incorporation of hands-on gardening experiences, food systems education, and cooking demonstrations within health education programs have been proposed to positively impact mental and physical health markers. To design future programs that utilize these concepts, there must first be an understanding of each concept's implications. Thus, the purpose of this literature review was to document the benefits of hands-on gardening education, incorporation of food systems curricula, and cooking demonstrations on health outcomes in school-aged youth.



Methods

- Electronic searches using MEDLINE, ResearchGate & Sage Journals
- Search terms included: “gardening nutrition intervention,” “youth gardening education,” “food systems knowledge,” “youth food systems education,” “health benefits of gardening,” and “hands-on cooking nutrition education”
- Previous studies involving at least one of the three domains of hands-on gardening, food systems, and cooking demonstrations were included
- Only articles written in English were included



Results

- 13 total articles were obtained & included
→ 5 interventional studies, 2 observational studies, 2 systematic reviews, a meta-analysis, a randomized controlled trial, a survey, & a cross-sectional review
- **Garden-based education:** education observed involvement of youth in school and community gardens where lessons included hands-on agricultural matters, including preparing the soil, planting, caring for and utilizing/tasting produce grown in their garden. Interventions ranged from 10 weeks to 6 months.¹⁻³
- **Incorporation of food systems curriculum:** included lessons on the environmental implications of food choices, food waste, and attitudes towards locally grown foods.⁴⁻⁷
- **Hands-on cooking demonstrations:** investigated child involvement in food preparation, choosing recipes, shopping for ingredients, and cooking meals with a chef, ranging from one to 12 60–90-minute sessions.⁸⁻¹³



Conclusion

Interventions to be included in future programming are garden education with hands-on involvement from children as it increases confidence, social skills, & quality of life. Next, teaching children about how their food choices can affect their health & the environment, which improves their nutrition & knowledge of their ability to make a difference. Lastly, involving children in the cooking process to improve self-efficacy & fruit & vegetable intake.



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