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Program Area: Food and Nutrition

Optimization of an after-school gardening club to enhance the health and food literacy of elementary-aged children

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Introduction: School gardens are exemplary learning environments for providing hands-on nutrition education and promoting development of leadership and collaborative skills. Collaboration across inter-professional domains is an important avenue for enrichment of school gardening activities.

Methods: We undertook a quality improvement initiative to optimize learning outcomes for 52 students in grades 2-5 participating in a non-profit sponsored after-school garden club. Students' baseline food literacy, diet habits and prosocial qualities were assessed utilizing previously published items tailored to our population and goal outcomes. Activities were subsequently developed to target areas of weakness. An example includes "garden bingo," which was developed to promote collaboration, encourage discussion with friends/family about healthy eating and improve knowledge of how vegetables are cultivated/grown. During "bingo," students (n=24) located and identified garden vegetables/herbs, supplies and surroundings.

Results: Students who participated in "bingo" identified 2-8 vegetables/herbs (mean=5.42±1.76) in their school garden. All students identified weeds and 22/24 (92%) identified a friend. Following "bingo," all students agreed or strongly agreed that they knew the materials needed for gardening. Fifty percent of students responding to a short survey regarding their favorite part of garden club that day mentioned the "bingo" activity.

Conclusion: Quality improvement of school garden programs requires collaboration among the medical, educational and non-profit sectors to identify and target students' specific knowledge deficits. "Garden bingo" is an illustrative example which was enjoyable and improved students' ability to critically observe the garden and its surroundings. Future lessons will continually enhance student knowledge by targeting specific deficits identified at baseline assessment.

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