Sustainability | Individual communication

IC - (21117) - GARDENING IN CHILDCARE CENTERS: A CLUSTER RANDOMIZED CONTROLLED TRIAL EXAMINING EFFECTS ON OUTCOMES RELATED TO HEALTHY EATING

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Background and objectives
Around the globe, young children fall short of recommended daily fruit and vegetable (FV) consumption. Childcare or "day care" environments have the potential to foster healthy dietary habits early in life. Gardening may promote healthy eating but childcare center gardening is seldom studied. We examine the impact of a childcare gardening intervention on children's tasting of FV; FV identification; and FV consumption during snack time.

Process and methods (for empirical research)

In this randomized controlled trial (RCT) 15 childcare centers in low-income areas within Wake County, North Carolina, were randomly assigned to: (1) intervention (in year 1), (2) waitlist control (year 2 intervention), or (3) control group (no intervention). The baseline sample includes 250 children aged 3–5 years old. The garden intervention comprised six raised garden beds planted with vegetables and fruits, and a booklet of 12 gardening activities. FV identification and tasting were measured using a tablet-enabled protocol. FV consumption was measured by weighing FV before and after snack time. Analyses combine year 1 and 2 data and employ linear mixed models with childcare center random effect and nested child random effect within childcare center.

Main results (or main arguments in the case of critical reviews)
In comparison to the control group(s), children who received the intervention showed statistically greater increases in: (a) identifying fruit (F) ($p<.05$), vegetables (V) ($p<.005$), FV ($p<.005$); (b) reports of having tasted: F ($p<.05$), V ($p<.05$), FV ($p<.01$); and (c) FV consumption during snack time: F ($p<.005$), V ($p<.001$), FV ($p<.001$). Results were consistently in the hypothesized direction, with intervention children showing greater increases than control group children.

Implications for research and practice/policy | Importance and originality of the contribution
This study employs compelling research design and methods addressing a critical gap in the empirical literature. Results suggest that FV gardening within childcare centers may be an effective strategy to encouraging healthy eating early in life. Regulatory education, and extension policies should require gardening in childcare environments.

Palavras-chave : children, childcare, gardening, randomized controlled trial, healthy eating