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### FUEL FOR FUN CHILD ASSESSMENTS OF VEGETABLE PREFERENCES AND COOKING SELF-EFFICACY SHOW PREDICTIVE VALIDITY WITH TARGETED HEALTHY EATING INDEX COMPONENTS

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Purpose: Improving children's dietary behavior through cooking interventions is gaining popularity, yet effect of these resource-intensive strategies is largely unknown because of few valid impact measures. We examined the ability of fruit and vegetable preferences (FP, VP), cooking attitudes (AT) and self-efficacy (SE) assessments to predict Healthy Eating Index (HEI) scores among 4th-graders. Methods: 1,409 children participating in Fuel for Fun, a school-based culinary intervention, completed classroom-administered baseline surveys: FP (7 items, range 7 – 35), VP (11 items, range 11 - 55), AT (6 items, range 6 – 30), and SE (8 items, range 8 – 40). A subset (n=101) completed 2 or 3 24-hour dietary recalls (diet assessments, DA) via telephone interview to obtain HEI scores. Data were transformed for normality, and linear regression examined predictive validity of FP, VP, AT and SE for targeted HEI components. Gender was a covariate for HEI whole fruit analyses. Results: DA (mean age 9.1 + 0.4 y; 47% female, 78% white, 17% overweight/obese) and non-DA children did not differ except for lower DA BMI percentile (49.4 + 30.8 vs. 57.1 + 30.0, P+ 10.9. HEI component mean scores (maximum 5) were: whole fruit 3.6 + 1.7; total vegetables 3.7 + 1.6; greens and beans 1.4 + 1.8; and empty calories (maximum 20) 18.6 + 2.4. FP mean was 29.3 + 4.5, VP was 36.6 + 8.2, cooking AT was 26.1 + 3.4, and SE was 33.9 + 5.8. No HEI or survey scores differed by gender except HEI whole fruit was greater in boys (P=0.04). VP predicted HEI total score, whole fruit, total vegetables, and greens and beans in anticipated direction (p Conclusions: Vegetable preferences and cooking self-efficacy predicted HEI total, empty calories, and nearly all FV component scores, supporting validity of these Fuel for Fun outcome measures.