

### Nutrition Empowerment Score as Reliable Measurement of Self-Efficacy in a Community-Based Hands-On Nutrition Education Class

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**Learning Outcome:** Describe a reliable measurement of self-efficacy used in a community-based hands-on nutrition education program.

**Background:** Self-efficacy is a concept reflected in health behavior models and theories used to describe individual and community behavior. This study identified a reliable measurement of self-efficacy among participants using the Nutrition Empowerment Score (NES). The score was created by the researcher and agency staff to quantify data related to self-efficacy.

**Methods:** Extant post-survey responses from participants of a hands-on nutrition education (HONE) class in a community-based teaching kitchen (n=89) were analyzed to determine the NES. The NES score was a total score of zero to eight, from low to high, representing increasingly perceived benefits from the cooking class. Cronbach's alpha ( $\alpha$ ) was used to determine the internal consistency of the NES. Mean NES and a low (0-2), medium (3-5), or high (6-8) NES were used to examine NES among the participant population. Qualitative data from open-ended post-survey responses used inductive analysis to triangulate data related to NES.

**Results:** It was determined that NES was a reliable measure ( $\alpha=.788$ ). Mean NES ( $6.56 \pm 1.93$ ) and 75% of participants with an NES of 6-8 reflected a high NES among participants. Qualitative statements reflected feelings of empowerment and high self-efficacy were expressed in the open-ended responses and supported the high NES scores from the quantitative findings.

**Conclusion:** Findings suggested that nutrition related self-efficacy was accurately assessed and found to be high among participants in the study. Identifying NES as a reliable scale of measurement allowed researchers to examine the relationship between NES and other research variables in the study.

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### Prevalence of Inadequacy and Food Sources of Shortfall Nutrients in Latin Americans: ELANS Study

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**Learning Outcome:** Understand the prevalence of inadequacy of shortfall nutrients and its food sources in adults living in eight Latin-American countries.

**Research outcome:** Like in the USA, there is increased consumption of overconsumed nutrients in Latin American countries. This can lead to inadequate intake of shortfall nutrients, including vitamin A, D, C, and E, dietary folate, calcium, iron, magnesium, potassium, and fiber. Thus, the objectives of this study were to examine the prevalence of inadequacy and identify food sources of shortfall nutrients in eight Latin American countries.

**Methods:** Data were obtained from ELANS, a multi-country, population-based study with 9,218 adolescents and adults. Dietary intake was collected using two 24hRecalls from participants living in urban areas of Argentina, Brazil, Chile, Colombia, Ecuador, Peru, and Venezuela. Foods items were classified using the adapted version of the NHANES "What We Eat in America" system. Prevalence of inadequacy was estimated using the Institute of Medicine recommendations. Analysis: Descriptive statistics were calculated to identify the prevalence of inadequacy and food sources.

**Results:** Prevalence of inadequacy was above 50% for most of the nutrients, with the exception of vitamin C having a prevalence of inadequacy of 39%. Milk, cheese, seafood, bread, and fruit juices/drinks were among the top 5 sources for each of the 10 shortfall nutrients examined.

**Conclusions:** Many food categories were top contributors to more than one dietary component examined. Understanding the nutrient intake and food sources can help inform dietary guidance and intervention approaches in Latin American countries and other high-income countries, such as the USA that has a large community of Latin Americans and Hispanic population.

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### Pregnant Women have Higher Healthy Eating Index Scores than Women Living with or without Children in the US: NHANES 2011-2016.

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**Learning Outcome:** Differentiate between diet quality among pregnant women, women living in households with or without children in the study.

**Background:** Life course theory suggests that dietary behaviors may improve as women become mothers. However, few studies investigate differences in intake across life-stages.

**Objective:** To compare the overall diet quality, measured by the Healthy Eating Index (HEI), among women of reproductive age at different life stages—pregnant, parent/child role model, or childless. Design: Secondary data analyses from the National Health and Nutrition Examination Survey (NHANES), 2011-2016.

**Participants:** Women (n=7120), 20-44 years old in three categories—pregnant, living in a household with or without children under 18 years. Outcome: HEI 2015 was used to assess overall diet quality. Statistics: Linear regression models were used to assess differences in HEI scores by life stage while adjusting for age, race/ethnicity, education, poverty and marital status.

**Results:** Mean HEI for the overall sample was 52.0 out of 100 points. Pregnant women had higher scores for overall HEI ( $\beta= 4.6$ ,  $SE=1.42$ ,  $p= 0.0022$ ), whole fruit ( $\beta= 0.99$ ,  $SE=0.18$ ,  $p<0.001$ ), dairy ( $\beta= 0.63$ ,  $SE=0.27$ ,  $p= 0.02$ ), and whole grains ( $\beta= 1.05$ ,  $SE=0.40$ ,  $p= 0.01$ ) than women living with children. Women living without children had higher scores for total vegetables ( $\beta= 0.18$ ,  $SE=2.04$ ,  $p= 0.002$ ), refined grains ( $\beta= 0.22$ ,  $SE=0.10$ ,  $p= 0.03$ ) and added sugars ( $\beta= 0.35$ ,  $SE=0.16$ ,  $p= 0.04$ ) than women with children.

**Conclusions:** Women living in households with children, who should model healthy dietary behaviors, had the lowest dietary quality. More research is needed to examine women's dietary behaviors across life-stages.

**Funding source:** None

### Quest for Healthy Schools: A Program Evaluation of School Wellness Efforts in SNAP-Ed Eligible Alabama Schools

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**Learning Outcome:** Upon completion, participants will gain insights into how the intermediary model used in Quest for Healthy Schools can be used in their PSE efforts.

Promoting a healthy school environment may be a key component in the prevention of childhood obesity, a condition disproportionately affecting students from limited resource, low-income populations. Quest for Healthy Schools (QHS) is a school wellness initiative seeking to influence school wellness policies, systems and environments (PSE) in Alabama schools serving limited resource, low-income populations. The program evaluation for QHS utilized a quasi-experimental, one-group pretest-posttest case study design including both quantitative and qualitative components. QHS Organizational Readiness for Implementing Change (ORIC) surveys and AHG Healthy Schools Program School Wellness Assessments were collected for outcome evaluation. Structured interviews were conducted with School Wellness Champions. SNAP-Ed site reports were submitted by local SNAP-Ed educators. Results showed no statistical significance between pre and post ORIC surveys and AHG Healthy Schools Program School Wellness Assessments. Although results from the ORIC surveys were statistically insignificant, most stakeholders were confident in their school's ability to make school wellness PSE changes. Findings indicate QHS school partners were able to overcome literature-based challenges to school wellness including (1) inability to gain support from key stakeholders, (2) not having adequate tools to support PSE implementation and evaluation, (3) lack of time and personnel, (4) not prioritizing school wellness efforts, (5) need for training opportunities and (6) being unfamiliar with school wellness policy requirements. 5-8 Alabama SNAP-Ed supported full implementation of PSE changes with an additional PSE effort still in progress due to the COVID-19 pandemic. This study demonstrates how local intermediaries can be effective in supporting school wellness promotion.

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