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participants lived out a “month” as a person living in poverty. Each simulation lasted approximately 1.5 hours.

Measurable Outcome/Analysis: Pre- and post-tests were used to assess understanding, attitudes, and sensitivity toward individuals experiencing economic hardship. Descriptive statistics were used to describe participants. Mixed model ANOVAs and paired 2 sample t-tests were used to assess changes in variables over the course of the simulation and between the 2 groups.

Results: A total of 44 high school and 48 college (mean age: 15.3 and 22.0 years, respectively) students participated in the simulations. Overall, improvement in attitudes, sensitivity, and understanding about the challenges facing the poor was detected. Greater gains in awareness of the challenges facing the poor, such as lack of childcare were seen among the high school students.

Conclusions: Exposure to the challenges of poverty via simulation enhanced students’ understanding of and empathy toward those who experience economic hardship. This simulation was particularly impactful for high school students. Such exposures may increase the likelihood that students pursue helping professions, and those that do will be more empathetic toward those experiencing economic hardship.

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Nutrition Education Research Methods

P170 Development and Validation of a Survey to Assess Diabetes Knowledge and Attitudes in Middle School Students

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Background: Limited surveys are available to assess diabetes prevention programs for young adolescents.

Objective: The objective of this study was to develop and validate a survey to assess diabetes knowledge, attitudes, and beliefs in middle school students.

Study Design, Setting, Participants: A 40-item survey was developed and validated in a convenience sample of middle school students in Utah. A panel of experts (n = 6) consisting of dietitians, diabetes educators, and 1 health teacher rated survey items using the Survey Validation Rubric for Expert Panel (VREP) approach. The instrument’s Content Validity Index (CVI) was calculated. After pre-testing (n = 245) and pilot testing (n = 61), questionnaire items were excluded based on the correct response rate, Cronbach α , and item-to-total correlation. The resulting 25-item questionnaire was completed by 277 Middle School students (mean age of 13.2 ± 0.4 years).

Measurable Outcome/Analysis: Exploratory Factor Analysis (EFA) was used to identify potential factors within the survey, and subsequent calculation of Cronbach’s alpha was used to determine the internal consistency of the potential factors. The Kaiser-Meyer-Olkin (KMO) test and scree plot analysis were performed to measure sample adequacy and to verify the number of extracted factors, respectively.

Results: Based on the expert’s responses, the overall Content Validity Index (CVI) for the survey items was 0.95. The Cronbach’s α coefficients were 0.7 for the knowledge and 0.72 for the attitudes and beliefs subscales, which demonstrated good internal consistency for both subscales. The sample was adequate (KMO > 0.7), and the data were suitable for factor analysis (Bartlett’s test of Sphericity $\chi^2 = 532.94$, $P < .001$). All factor loadings were above 0.4, revealing close relations between factors and items.

Conclusions: This survey demonstrates satisfactory internal consistency, construct validity, test-retest reliability, and factor structure. Results suggest nutrition educators can use this instrument to assess knowledge, attitudes, and beliefs in middle school students.

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