Using the IMB Model to Explore the Fruit and Vegetable Intake of Native American Toddlers: A Mixed Methods Approach

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Abstract

Obesity rates among the Native American population are greater than any other ethnic group in the United States. This disparity begins to develop in early childhood, and the excess weight carried by Native American children contributes to health conditions that can affect quality of life by the time they enter preschool. These children consume less than recommended amounts of fruits and vegetables, a dietary pattern that is related to the development of obesity and other health conditions. This mixed methods study will explore fruit and vegetable intake of preschool age Native American children within the framework of the Information-Motivation-Behavioral Skills (IMB) Model of health behavior. In conducting qualitative research with caregivers of Native American toddlers and key stakeholders in Native American communities, the first phase of this study will explore perceptions of knowledge, motivational, and behavioral skills related to fruit and vegetable intake of Native American toddlers. Findings from the qualitative phase will then be used to develop an IMB Model-based survey, which will be administered with a fruit and vegetable food frequency questionnaire. This quantitative phase will investigate how the constructs of knowledge, motivation and behavioral skills are related to fruit and vegetable intake. Findings will be used to inform the development of an IMB-Model based fruit and vegetable nutrition education program for Native American families. The long-term goal of this project is to reduce obesity and chronic disease rates among Native American children through increased knowledge, motivation and behavioral skills related to fruit and vegetable consumption beginning in early childhood.

The Information-Motivation-Behavioral Skills Model

- General model of health behavior change used to frame and create theoretically and empirically based health risk reduction interventions
- Focuses on the set of informational, motivational and behavioral skills associated with successful practice of preventative health-related behaviors (Fisher & Fisher, 1999)
- Postulates that when individuals are well-informed, motivated to act and possess the necessary behavioral skills required to act effectively, they will be likely to initiate and maintain a health behavior (Fisher, Fisher & Shuper, 2009).
- Model has been used to explore a variety of health-related behaviors:
  - Breast self-examination (Misovich et al., 2003)
  - Type 2 diabetes intervention (Gao et al., 2013)
  - Sugar-sweetened beverage intake (Goodell et al., 2012)
  - Head start teachers and fruit and vegetables (Mita et al., 2013)
- Has not yet been used to explore dietary patterns among the Native American population
- The model will guide all aspects of this project, including questions asked during the qualitative phase and the quantitative survey questions

Research Questions

RQquant: What perceptions do caregivers have regarding the fruit and vegetable consumption of their toddlers?
RQqual1: What perceptions do community stakeholders have regarding the fruit and vegetable consumption of Native American children?
RQqual2: What common themes of response emerge between caregivers and community stakeholders regarding the fruit and vegetable consumption of Native American children?
RQqual3: What is the relationship between caregiver fruit and vegetable-related information and fruit and vegetable intake among Native American toddlers?
RQqual4: What is the relationship between caregiver fruit and vegetable-related motivation and fruit and vegetable intake among Native American toddlers?
RQqual5: What is the relationship between caregiver fruit and vegetable-related behavioral skills and fruit and vegetable intake among Native American toddlers?
RQqual6: Does the developed quantitative assessment tool provide insight into the predictors of the fruit and vegetable intakes of Native American toddlers?
RQqual7: In what ways do the results from the quantitative fruit and vegetable IMB Model survey help to generalize the qualitative findings regarding fruit and vegetable intakes of Native American toddlers?

Implications

The findings from this research will be used to develop nutrition education programs and policy interventions. This research will benefit the Native American community, public health professionals working in these communities and interventionists working to address nutrition-related health disparities.

References:


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