



Increasing Diversity, Equity, and Inclusion in Nutrition and Obesity Research: A Road Map to Equity in Academia

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Abstract

Objective: To investigate the strategies utilized by nutrition educators who collaborate with the Produce Prescription (PPR), Nutrition Incentive (NI), and Gus Schumacher Nutrition Incentive (GusNIP) programs of the US Department of Agriculture.

Methods: A descriptive survey (n = 41), individual interviews (n = 25), and a focus group (n = 5) are among the numerous data collection methods. Participants in the interview were educators who provide nutrition education as part of the GusNIP NI/PPR programs. Survey responses were used to calculate descriptive statistics. Methods of thematic qualitative analysis were used to code the transcripts.

Results: There were four overarching themes. First, educators have a lot more to do than just teach nutrition through the curriculum. Second, interviewees emphasized nutrition education and support with a focus on the participant. Third, associations with working together cross-area associations are fundamental. Fourth, educators proposed solutions to address the common obstacles that prevent nutrition education from being delivered in GusNIP NI/PPR programs.

Conclusions: Nutrition educators advocate for multilevel approaches to enhancing dietary intake, and it is suggested that they participate in discussions aimed at enhancing GusNIP NI/PPR programs.

Keywords: Nutrition incentive; Produce prescription; Nutrition education; Qualitative methods

Introduction

It is well established that individual-level nutrition education is only one layer of the solution to improving dietary behaviors; however, nutrition education interventions tailored to learners with limited finances and limited access to healthful foods, which employ participant-centered pedagogy, effectively empower individuals to make healthful food choices [1, 2]. Nutrition education encompasses any combination of educational strategies accompanied by environmental supports designed to facilitate the voluntary adoption of food choices and nutrition behaviors conducive to wellness [3]. Research suggests that nutrition education specific to people who experience limited income can improve the intake of the policy, systems, and environment framework for nutrition interventions and the socioecological model support the approach of addressing food insecurity, or a lack of consistent access to enough food for an active, healthy life, in conjunction with nutrition education. Food insecurity is well-known as a social determinant of health, and addressing it through community-based, equitable approaches is prudent for national nutrition promotion [4]. These frameworks suggest the importance of the relationship between health behaviors and individual, interpersonal, organizational, community, and The 2020–2025 Dietary Guidelines for Americans draw on the socioecological model and recommend taking into account multiple levels, such as community/environment, interpersonal/household, and individual factors, when addressing access to resources. Together, these frameworks aim to address health disparities and promote equity-based, multilevel solutions to improving nutrition.¹³ One example of a multilevel intervention is the Gus Schumacher Nutrition Incentive Program (GusNIP), which provides funding opportunities for organizations across the US to improve fruit and The Food Insecurity Nutrition Incentive Program, which ran from 2014 to 2018,¹⁴ preceded GusNIP [5]. The GusNIP funding mechanism covers two types of programs: Produce Prescription (PPR) and Nutrition

Incentive (NI): The GusNIP NI program gives consumers who are enrolled in the Supplemental Nutrition Assistance Program (SNAP), the largest federal food assistance program in the United States, financial incentives for FVs at the point of sale. In general, GusNIP NI aims to reduce individual and household food insecurity and increase the purchase and consumption of FVs. The GusNIP PPR program also aims to prevent and treat diseases related to nutrition, such as diabetes and cardiovascular disease [6].

Methods

To gain an understanding of the perspectives and experiences of nutrition educators who collaborate with the GusNIP NI and PPR programs, the project team carried out a basic qualitative research¹⁵ multiple methods study. A brief survey, individual semistructured interviews, and a focus group were all part of this study.

Applied system

This study is outlined by a constructivist epistemological methodology, which permits scientists to draw in with interviewees to grasp the real factors and encounters of some random point from the remarkable and nuanced viewpoint of the interviewee. Constructivists

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don't really accept that there is a solitary truth and this hypothetical structure is particularly useful while attempting to comprehend complex peculiarities according to the viewpoint of individuals most influenced by these issues.

Information assortment

This study was driven by scientists at the GusNIP Public Preparation, Specialized Help, Assessment, and Data Center (NTAE), which is financed by the USDA to give revealing, assessment, and specialized help backing to grantees and the more extensive fields of NI and PPR.

For surveys and interviews, nutrition educators were enlisted via email invitation from their assigned GusNIP NTAE reporting and evaluation program advisor as well as from other GusNIP networks (such as the GusNIP nutrition education community of practice). Maximum variation sampling was used to ensure a wide range of nutrition educators, including RDNs, SNAP-Ed educators, and Cooking Matters educators, as well as national representation. Snowball sampling was not used in this study. In scripted recruitment emails, all participants were asked to complete a brief Qualtrics survey [7]. Snowball sampling involved study participants recommending and sending recruitment materials to additional nutrition educators they believed would provide insight into the dataset. The demographics (such as race and ethnicity) and work experience (such as the number of years as a nutrition educator and the type of nutrition education training) were the subjects of the survey questions. This survey's sole objective was to provide participant descriptions. Participants had the option of participating in a subsequent individual semistructured interview at the conclusion of the survey. A semistructured moderator guide with probes was used by an RDN-trained qualitative researcher to facilitate the interviews. The semistructured mediator guide questions can be viewed and were created based on the writing and in a joint effort with RDNs who are sustenance teachers and coauthors of this original copy.

Results

Results of the Survey: 41 people responded to the survey. The majority of participants were White and female (93 percent). Most (90%) held a four year college education or higher. The participants reported an average of 7.8 to 8.0 years of nutrition education experience. 64 percent of respondents identified as SNAP-Ed or nutrition educators, while 24 percent identified as RDNs. For all of the survey's reported results.

Qualitative Findings These interviews revealed four major, overarching themes. First, nutrition educators who work with NI/PPR programs have a lot more to do than just teach traditional, curriculum-based nutrition. Second, nutrition educators focus on participant-centered nutrition education and support through a variety of strategies and practices. Thirdly, the success of NI/PPR and nutrition education programs depends on partnerships with cross-sector organizations that collaborate [8]. Fourth, educators suggested ways to lessen the difficulties associated with providing nutrition education and NI/PPR programs. Following that, we provide more in-depth descriptions of these four themes and illustrative quotations for each one.

Beyond providing traditional, curriculum-based nutrition education, nutrition educators who collaborate with NI and PPR programs have a variety of roles and responsibilities. Reading food labels, increasing FV intake (such as by following MyPlate recommendations), reducing sugar, fat, and sodium, and cooking

with fresh fruits and vegetables were among the curriculum-based nutrition education that all participants received [9]. Beyond providing direct nutrition education about food behaviors and skills, nutrition educators who work with NI and PPR programs also carry out roles and responsibilities. One SNAP-Ed/Cooking Matters educator exemplified the role nutrition educators play in promoting NI/PPR programs to their participants.

Discussion

The theoretical framework and existing literature lend credence to the findings of these interviews, which reveal four major themes. Nutrition educators who work with NI and PPR programs perform a variety of functions, place an emphasis on education that is centered on the needs of the student, place a high value on cross-sector partnerships, and offer solutions to the difficulties they face when providing nutrition education [10].

This interview study's educators, supported by peer educators, community health workers, and promotora nutrition education models^{28, 29, 30} shared the many roles they play in providing nutrition education beyond curriculum-based individual-level nutrition education. The socioecological model³¹ lends credence to their endeavors insofar as it demonstrates that individual education alone is not sufficient to effect behavior change in relation to healthy nutrition. The efforts of nutrition educators have a positive impact on the socioecological model's community and environmental levels. Through the provision of resources to decrease food insecurity and increase FV purchasing and consumption (e.g., NI/PPR), they are inherently addressing food security-related social determinants of health by promoting nutrition incentives and empowering their participants to patronize local farmers' markets and purchase fresh produce [11].

Again, nutrition educators recognize the importance of "meeting people where they are" and creating safe, inclusive, and culturally responsive spaces for nutrition education opportunities, as supported by concepts of motivational interviewing for nutrition education and medical nutrition therapy^{32, 33, 34}. Again, nutrition educators recognize the importance of "meeting people where they are" In addition, Knowles' Adult Learning Theory³⁵ constructs support their hands-on approach to nutrition education, which includes teaching the logistics of how to use incentive tokens at the farmers' market, tours of food retail outlets, cooking demonstrations, and food sampling opportunities. These activities foster real-life capacity building for participants to implement the didactic nutrition education they might receive in a traditional classroom setting. At long last, teachers examined their endeavors to adjust their programming to socially better address the issues of different crowds [12]. The most common form of cultural adaptation was providing programming in the participants' native language, such as Spanish. The GusNIP NTAE strives to develop resources to ensure that diversity, equity, and inclusion are taken into account in program implementation, reporting, evaluation, and technical assistance.^{36,37} If resources were available, educators indicated that they would like to have more diversity among their staff, particularly nutrition educators who were members of the communities they intended to serve (for instance, Spanish-speaking nutrition educators). A key solution to increasing diversity among nutrition educators is to expand peer educator and community health worker models and elevate these positions to include competitive salaries to support these essential team members over the long term [13].^{40,41} Nutrition educators cited the importance of cross-sector

collaborations, primarily to ease the marketing burden and promote their educational programming and NI/PPR resources to eligible individuals.^{38,39} Survey respondents in this study similarly identified as younger, non-Hispanic White women, which mirrors those demographics of RDNs in the US. Educators suggested that when these partnerships were strong and successful, they helped spread the word about available resources and cross-promote resources to streamline support for eligible people. The literature supports the significance of cross-sector collaborations in public health interventions^{42, 43, 44}, and it is evident that cross-sector organizations are required in public health to increase equity and inclusion and address structural racism issues^{45,46}. When organizations do not effectively cross-promote, collaborate, and communicate, the results are increased effort in each organization promoting, “recruiting,” and marketing their programs and decreased time spent delivering them. In addition, a lack of effective cross-sector collaboration places the burden of locating pertinent nutrition-related resources on the individuals who require them. Many of these individuals have competing priorities, such as the security of their housing and child care, which all contribute to the escalation of health disparities [14].

Conclusion

To adequately address nutrition-related health disparities, multilevel efforts are required, and cross-sector collaborations are necessary to support multilevel efforts. At the individual level, nutrition educators provide education and support, at the community level, they connect individuals to resources to reduce food insecurity, and at the community and environment level, they promote consumer demand to strengthen local food systems and producers. Community health workers, peer educators, and promotoras models for nutrition education and NI/PPR program delivery deserve to be valued (e.g., financially supported) as key members of the health care delivery team. Nutrition educators are most effective when they are adequately resourced to perform these crucial roles.

Although this method requires more capacity, time, and expertise, evaluation findings also present an opportunity to prioritize qualitative methods alongside other forms of data collection to better comprehend the participants’ experiences and nutrition-related behavior change. Researchers can use qualitative methods to frame their questions through a postpositivist lens (such as critical theory or feminist theory) and employ methodologies (such as the case study methodology) that permit multiple data collection methods (such as interviews, observations, photovoice, and surveys) in order to tell a complete story about the experiences of the participants. In nutrition public health

program evaluation, these postpositivist epistemological frameworks can also help to improve diversity, equity, and inclusion.

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Conflict of interest

None

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