

# **Incorporating Paraprofessional Educators' Perspectives into the Curriculum Revision Process for the Expanded Food and Nutrition Education Program**

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*Focus groups were convened with 29 paraprofessional educators from two land grant universities (LGUs) to document their experiences delivering an adult nutrition education curriculum through the Expanded Food and Nutrition Education Program (EFNEP) and to solicit their suggestions for curriculum improvement. Emergent themes indicated that paraprofessional educators desired greater flexibility in curriculum delivery, more activities that employ active learning, and simplification of curriculum content. Educators also expressed concerns regarding professional competence, perceptions of contradictory information within the curriculum, and a disconnect between program leaders' expectations and the realities of program delivery in the community setting. Findings highlight benefits of including educators in curriculum development and revision processes and support the development of future studies to investigate ways to incorporate more flexibility into curricula without compromising core content. Findings also support the need for additional studies that assess whether food-based recommendations rather than nutrient-based recommendations could improve outcomes in EFNEP and other health and nutrition education programs.*

## **Background**

Since 1969, the Expanded Food and Nutrition Education Program (EFNEP), administered by the United States Department of Agriculture's (USDA) National Institute of Food and Agriculture (NIFA), has addressed social disparities in health by helping low-income families acquire the knowledge, skills, and attitudes to live more healthful lifestyles. Using a community-based, hands-on educational approach, EFNEP coordinators at land grant universities (LGUs) recruit and hire paraprofessionals (i.e., peer educators) from low-income areas and train them to deliver a series of face-to-face, interactive educational sessions through organizations and agencies in their home communities (Chipman & Kendall, 1989). EFNEP is delivered in all 50 states and U.S. territories utilizing the framework of the Cooperative Extension system. The curricula utilized within EFNEP programming vary across states and territories and target both

adult and youth populations, but the lessons that the paraprofessionals teach must address the core areas of EFNEP programming: diet quality, physical activity, food resource management, food safety, and food security (USDA, 2016).

Curricula targeting adult populations typically consist of eight to twelve sessions per educational series (Auld et al., 2019), and most adult curricula also include food preparation demonstrations and/or food tastings at each session (Moore et al., 2020; Murray et al., 2015). Program impact among adult populations is evaluated using a standardized evaluation tool that consists of a pre- and post-education behavioral questionnaire and 24-hour dietary recall (USDA, 2018). State and national reports consistently demonstrate immediate positive behavioral impacts of EFNEP among participants (Arnold & Sobal, 2000; Auld et al., 2015; Dickin et al, 2005; Neelon et al, 2022; Perkins et al., 2019; USDA, 2021). However, a recent systematic review found limited evidence of long-term behavioral change among participants and suggested that curriculum content could potentially be strengthened to improve the maintenance of positive behavior changes over time (Atoloye et al., 2021).

Within the broader literature evaluating the efficacy and effectiveness of nutrition education interventions, factors associated with greater improvements in nutrition-related behaviors include utilizing a theory-based curriculum with clear, focused objectives; facilitating an appropriate duration and dosage of the intervention; and delivering the intervention with fidelity to the original design (Murimi et al., 2017). Further, once a successful intervention has been implemented, it must be continually reviewed and revised to ensure that the curriculum content aligns with current dietary recommendations and program objectives, meets the current needs of the target population, and is being delivered and evaluated as intended (Baker et al., 2020; Chipman & Kendall, 1989).

### ***Food Talk: EFNEP in Georgia***

The adult curriculum utilized in Georgia EFNEP operations, entitled *Food Talk*, was originally developed in 2007 as a nutrition education intervention to reduce hypertension among program participants. The curriculum includes learner-centered education techniques and experiential learning activities based on the Health Belief Model (Janz & Becker, 1984). Since its inception, the *Food Talk* curriculum has been updated to include two additional educational sessions, resulting in an eight-session series. Sessions are designed to last about one hour, and each session incorporates food demonstrations with two low-cost recipes.

Although the original curriculum validation studies were conducted with a convenience sample of 212 participants, the program now reaches thousands of participants each year and is delivered by more than 30 separate paraprofessionals in over 40 counties throughout the state, introducing some degree of variation in the curriculum's delivery. Some of the images in the curriculum have become outdated, and other updates may be needed to address documented changes in the food environment and individual food preferences in recent years (Kuhns & Saksena, 2017). Additionally, at the time of this evaluation, the *Dietary Guidelines for Americans* had undergone two cycles of revision (USDA, 2020), and a new national EFNEP evaluation tool was implemented in 2018 (Murray et al., 2017; Murray et al, 2020).

As the state program coordinator and local Extension leaders considered needed curriculum revisions to improve program outcomes and enhance participant retention, focus groups were convened with paraprofessional educators throughout the state to document their experiences delivering the existing curriculum and to collect their suggestions for curriculum improvement. This paper outlines the methods utilized in this cross-sectional, formative study

and discusses findings that may assist others in the development, implementation, and evaluation of curricula for other community health, nutrition education, and family and consumer sciences (FCS) programs.

## **Methods**

### **Utility of Focus Groups**

Focus groups, initially developed for marketing research, have been used in recent years in health and social science research to obtain qualitative information on “focused” topics. The purpose of a focus group is to elicit respondents’ perceptions of a defined area of interest through carefully planned, semi-structured interviews. This methodology generates a large amount of data in a short period of time, and the social interaction of the group often produces deeper and richer data compared to one-to-one interviews. Although focus group findings have limited generalizability, these methods are well suited for exploratory, formative, or process evaluation research and can provide meaningful information that may not be available through other techniques (Betts et al., 1996; Rabiee, 2004.).

### **Instrument**

A committee including the state program coordinator and several local Extension leaders developed a focus group script that consisted of 12 open-ended questions with additional probes to stimulate conversation among paraprofessional educators regarding perceived strengths and weaknesses of the curriculum utilized for adult EFNEP programming and to assess the degree to which the curriculum was being implemented as intended. The script was reviewed by additional colleagues with expertise in conducting focus groups and staff members who previously worked as EFNEP educators or supervisors. Minor revisions were incorporated based on their feedback, and final questions and probes are shown in Table 1. An in-person training was conducted for all moderators and room assistants that outlined the purpose of the exercise and standard procedures that should be followed to ensure consistency across groups and appropriate documentation of responses (Jones & Carson-Cheng, 2013).

### **Participants and Recruitment**

During the 2018 annual state EFNEP conference, all paraprofessional educators from the two LGUs within the state were invited to participate in focus groups to identify needed changes to the existing adult curriculum. Participation was voluntary and focus group participants were neither compensated nor penalized based on their decision to participate or not participate in the focus groups. All focus group participants provided written informed consent, and all procedures were approved by the Institutional Review Board at the University of Georgia.

A total of 29 paraprofessional educators participated in four focus groups. Group sizes ranged from 6 to 12 participants. All focus group participants were female, and educators’ experience working with EFNEP ranged from 0.4 to 22.3 years, with a median of 4.5 years. Groups were assembled to include individuals from different geographic regions with a range of programmatic experience. This heterogeneity was intended to introduce a range of perspectives that could encourage contrasting opinions and active discussions within each group.

### **Procedures**

Focus groups were led by moderators whose work involved nutrition education; however, moderators were not directly affiliated with EFNEP. The selection of moderators without direct program affiliation was intended to avoid the perception of superior-subordinate relationships

between moderators and focus group participants that might inhibit candid discussions. Moderators administered the scripted questions and probes during each of the four 90-minute sessions. Focus group discussions were audio recorded and transcribed by a third-party transcription service (Rev.com, San Francisco, CA).

**Table 1**

*Scripted questions and probes used in focus groups with EFNEP paraprofessionals who deliver the Food Talk curriculum.*

Focus Group Questions	Additional Probes
Which <i>Food Talk</i> sessions do you enjoy teaching?	
Which sessions are difficult to teach?	
What activities are most engaging for your participants?	Provide outline of activities for each session.
What activities do your participants like least?	Provide outline of activities for each session.
Are you teaching <i>Food Talk</i> according to the Leader Guides?	Do you add information to your sessions that is not covered in the Leader Guide? What are you adding?
Are you leaving things out when you teach <i>Food Talk</i> ?	What do you leave out?
What seems out of order within sessions or from session to session?	
What flows well within sessions or from session to session?	
What questions do participants ask?	
Which recipes do you enjoy preparing?	Provide a list of all recipes included in <i>Food Talk</i> .
Which recipes do you dislike preparing?	Provide a list of all recipes included in <i>Food Talk</i> .
If you were modifying the curriculum to better suit your participants, what changes would you make?	

### **Coding and Data Analysis**

Two data analysts read focus group transcripts and independently identified emergent themes using an open coding technique (i.e., key words or codes were generated from the data itself rather than evaluating the data using a predefined set of categories or codes) (Thomas, 2006). The two analysts reconvened and developed a codebook detailing emergent themes. Each focus group transcript was coded independently by each analyst using the comment function in Microsoft Word. A macro was used to extract coded text from each transcript and create a table in a separate Microsoft Word document using macro syntax that was previously published (McAlister et al., 2017). This technique allowed analysts to easily visualize concordant and discordant coding, which informed subsequent discussions to reach consensus in cases where inconsistencies were noted.

### **Results**

Many curriculum-specific themes emerged regarding the educational content, activities, and recipes that are unique to the *Food Talk* curriculum; however, thematic excerpts from the codebook that apply to themes with broader implications among FCS and health educators are shown in Table 2. Representative comments that pertain to each of these more general themes are subsequently reported.

#### **Fidelity vs. Adaptation**

Statements related to the degree to which paraprofessionals deliver the curriculum exactly as written indicated that educators do make some adaptations to the curriculum to better relate to EFNEP participants.

*I've been working with EFNEP for quite a few years, almost 15, and, I try to do my best to do exactly like it is supposed to be done, but... I have to gear what I'm doing to my audience. (Focus Group 2)*

*I follow my leader guide, but I make it my own because like I've stated... you have to tell your story to get your clients to understand you... I have to make them realize that I've walked in some of their similar shoes... It's not written in my lesson guide but it's the only way that – if they can relate to me, that's the only way that they're gonna take the stuff home. (Focus Group 4)*

Educators also indicated that some adaptations can be necessary due to time constraints.

*I think the only time I might leave [something out], is because either I've forgotten it, or the time crunch was ridiculous where I had no choice. (Focus Group 4)*

*Sometimes it's a matter of can you get it all in. It's not a matter of the fact that you're purposely trying to leave it out... Sometimes, depending on what type of class you're doing, you've got between 30 minutes to 45 minutes to teach the session. And... with some of the sessions being so long... if participants ask you questions... you can't get it all done. You can't. (Focus Group 3)*

**Table 2**

*Excerpt from the codebook of emergent themes from focus groups with EFNEP paraprofessionals evaluating their experiences with and perceptions of the Food Talk Curriculum*

<b>Code</b>	<b>Definition</b>
Fidelity vs. Adaptation	Statements that relate to the degree to which educators deliver the curriculum exactly as written, a need for more flexibility within the curriculum to allow for adaptation/personalization, or adaptations that they have made/are making to solve current issues.
Lecture vs. Active Learning	Statements that provide educators' opinions related to the two teaching and learning methods included in the curriculum and/or reference the degree of interaction with participants during the sessions.
Complexity vs. Simplification	Statements regarding the level of detailed information included in the curriculum, comprehension challenges for participants, or a need to simplify curriculum content.
Professional Competence	Statements that indicate that educators do not feel that they have the needed knowledge and or skills to address participant questions or deliver the information in the curriculum with authority.
Contradictory Information	Statements that indicate that educators feel that the messages in the curriculum are contradicted by other messages within the curriculum or general nutrition guidelines.
Theory vs. Practice	Statements indicating a perceived disconnect between program leaders' ideas of what is appropriate or feasible curriculum content and what can practically be implemented in a community setting.

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Some educators expressed frustration with having to follow scripted lesson plans and requested more flexibility within the curriculum to allow for more personalization.

*You can't incorporate your own little twists on things. It's like straight script... so that makes it a little boring sometimes. (Focus Group 3)*

*We need to read our group of people and be able to say, "Okay, I think we need to do this a little different or that a little different." That's where we need that little bit of leeway that we can make some changes on our own. (Focus Group 3)*

**Lecture vs. Active Learning**

EFNEP paraprofessional educators consistently expressed a preference for activities that are highly engaging and interactive.

*I like that part because they get to talk a lot and you get – it's a lot of back and forth and that – those is the classes I like the best because we can stand up and tell them anything and everything, but until they can relate, they're not gonna really take it in.*

(Focus Group 2)

Additionally, most felt that more interactive activities could be incorporated.

*When you read from the leader guide completely, I don't know- for me- I don't like learning like that. I like interaction... I mean, just to stand up there and read everything, that tends to bore me to death.* (Focus Group 2)

*You have to draw people's interest, and you don't draw a person's interest with a long process of teaching. It has to be quick. It has to be interesting. I mean, people don't want you standing up there and talking to them for an hour in a lecture type of situation.*

(Focus Group 3)

### **Complexity vs. Simplification**

There was a strong consensus that information presented within lesson plans is too dense and complex, and EFNEP paraprofessionals indicated that simplifying the curriculum might improve participant retention and program outcomes.

*I think it's a lot of information just to grasp in one class.* (Focus Group 2)

*I would cut it down where it'd be short and simple so it's more or less, you know, I got time to give you the important points. Then I got time to cook.* (Focus Group 1)

Some educators also suggested placing a greater emphasis on the food demonstrations rather than nutrition education.

*Share a solid good recipe that will change one thing in a life... People change their eating habits based on simple things. [It] doesn't have to be that complicated.*

(Focus Group 3)

*The lessons are so long... Most of the time when people know you do food demonstrations, that's all they want.* (Focus Group 1)

### **Professional Competence**

Some EFNEP paraprofessionals felt that the information included in the curriculum is beyond their scope of practice.

*When we walk into a classroom, they literally think they have a dietitian in front of them. Even though you make sure you explain who you are and what your limits are, they hear . . . nutrition – EFNEP nutrition – and they wanna ask you everything that concerns their health.* (Focus Group 3)

*Part of the food label is also understanding the average amount of calories maybe for them as adults. For their children, they'll ask me, "Well how many calories should my seven-year-old eat?" Or whatever. So that's kind of, you know, I can't really give them numbers because I don't know. (Focus Group 4)*

### **Contradictory Information**

Educators also felt that some messages in the curriculum are contradicted by other messages within the curriculum or by general nutrition guidelines.

*I think with [session] number three, we kinda contradict ourselves about the recipes telling us about salt and sodium, but that recipe is so high with sodium. (Focus Group 3)*

*I feel like with us teaching about sodium and then we got these recipes with sodium, [participants are] like "Do you really know what y'all talking about, what y'all teaching us?" (Focus Group 3)*

*I'm teaching you, promoting healthy living and healthy lifestyles, and they're looking at [me like], "Well, let's calculate these calories." (Focus Group 4)*

### **Theory vs. Practice**

Several notable comments also emerged indicating a perceived disconnect between program leaders' ideas of what is appropriate or feasible curriculum content and what can practically be implemented in a community setting.

*People that are, you know, sitting at the top... if you go out and be me for a day, you would truly understand my world. And I guess they probably feel if I was them for a day, I would understand, though. But... what goes on paper and what has to take place, it's a whole other world. It's hard. (Focus Group 3)*

*I feel that [the]activities are too messy, they fall out everywhere and to carry all that stuff is, to me, is not comfortable, is not practical at all. And, people, you know...when they gave the demonstration for the first time for us, everything looks perfect but we was not really sitting in a real environment where people ask questions and all of that. (Focus Group 4)*

### **Discussion**

The general themes from focus group comments coded with fidelity vs. adaptation, lecture vs. active learning, complexity vs. simplification, professional competence, contradictory information, and theory vs. practice are summarized below and are subsequently discussed within the context of the existing literature:

1. There should be more flexibility to allow educators to adapt the curriculum to better meet client needs.
2. Educational sessions should incorporate active learning rather than lecture-based teaching to a greater degree.
3. The information presented within lesson plans is too dense and complex. Content should be simplified to improve participant retention and program outcomes.
4. The curriculum content elicits questions from clients that educators are not equipped to answer.



5. Information presented within the curriculum seems contradictory at times and undermines the educators' ability to establish rapport and credibility with the clients.
6. Program leadership is not fully aware of the challenges that come with implementing the program at the community level.

### **Fidelity vs. Adaptation in Community-Based Interventions**

Regarding community-based interventions, there is ongoing debate between those who advocate for exact replications of effective program models and those who maintain that models must be adapted to local conditions to maximize impact as well as local ownership (Mowbray et al., 2003). However, while some level of adaptation may be necessary due to social and cultural needs of local participants, the bulk of existing literature has found that better outcomes are achieved when efficacious programs are implemented with greater fidelity to the original model (Durlak & DuPre, 2008; Murimi et al., 2017). Additionally, implementing both curricula and evaluation processes with fidelity can increase confidence in program evaluation data that are aggregated from multiple educators and/or multiple implementation sites (Baker et al., 2020).

Thus, assessing fidelity to a curriculum in the current framework of program implementation and determining which components of the curriculum are essential to achieving desired program outcomes, independent of delivery context, would be of vital interest to program leaders and other practitioners who are adopting EFNEP and other FCS, community health, or nutrition education programming. Making this critical determination could inform ways to strategically build more active learning, flexibility, and alternative programming options into the curriculum that would allow educators to feel more empowered and invested in the programming that they are delivering while also ensuring that accurate and impactful information is being communicated. Additionally, having a better understanding of which curriculum components are most integral to achieving desired program outcomes might inform strategies for condensing material when time constraints or unforeseen circumstances do not facilitate delivery of the full curriculum as intended.

### **Concerns Related to Nutrition Messages**

EFNEP paraprofessionals' requests for a more simplified curriculum as well as concerns regarding professional competence and perceptions of contradictory information focused heavily on curriculum content addressing diet quality. The nutrition education messages within the *Food Talk* curriculum align with key recommendations from the *Dietary Guidelines for Americans*. Food-based recommendations and activities encourage participants to eat a variety of vegetables, consume whole fruits, make half of grain servings whole grains, choose low-fat or fat-free dairy products, and eat a variety of protein foods. The curriculum also includes nutrient-based recommendations to reduce consumption of sodium, saturated fat, and sugar and increase fiber intake. Nutrient-based messages in the curriculum are reinforced through activities utilizing the Nutrition Facts label and the "5/20 rule," which uses the percent Daily Value (% DV) on the nutrition label as an indicator that a serving of an individual food or beverage is high or low in a nutrient. A % DV of 5% or less is considered low, and a % DV of 20% or more is considered high (USDA, 2020). Messages in the curriculum advise consumers to look for foods and beverages that are high in nutrients that are often under-consumed, such as fiber, and low in nutrients that should be limited, such as sodium, saturated fat, and sugar.

Evidence suggests that individuals who lack specialized training in nutrition and dietetics can have difficulty implementing dietary advice that is based on nutrients and not foods (Green, 2015). Additionally, although most individuals can understand some basic nutrition information

on food labels, comprehension accuracy decreases for more complex tasks. For example, label reading can be useful for making comparisons between two food products, but few consumers can calculate the contribution of a single food or meal to total dietary intake (Miller & Cassady, 2015).

This latter concept is exemplified by the perception that the recipes included in the curriculum are at odds with recommendations for healthy eating even though the food demonstrations in the *Food Talk* curriculum incorporate strategies to increase the nutrient density and reduce the sodium, saturated fat, and sugar content of the recipes relative to traditionally prepared versions of these meals. Further probing revealed that these misconceptions are likely a byproduct of paraprofessional educators and program participants applying the “5/20 rule” to the nutrition labels that are provided for the recipes in the curriculum. For example, the average sodium content of the main dish recipes in the curriculum is 21% of the DV. Within the context of other healthful meal and snack choices, a full meal that provides 21% or even 30% of the DV for sodium places a consumer on a trajectory to stay at or below the recommended daily intake (100% DV). However, the application of the “5/20 rule” to a nutrition label for any meal that provides more than 20% of DV would lead to the conclusion that the meal is “high in sodium.” Further, if a person were to limit himself/herself to meals and snacks that only provide 5% or less of the DV for sodium, he/she could fall short of daily minimum physiological requirements for sodium intake, which – if sustained over time – could lead to adverse health outcomes (Whelton, 2016).

Although curriculum-specific feedback has indicated that some recipes within the *Food Talk* curriculum should be modified to improve their nutrient and flavor profiles, discussions and observations from these focus groups raise questions as to whether nutrient-based dietary recommendations, label reading activities, and heuristics like the “5/20 rule” are appropriate or possibly counterproductive within the context of nutrition education and FCS programs. Employing more objective measures of program outcomes, ratings of professional competence, and perceptions of contradictory information within the context of existing programming and making comparisons to the same objective measures collected within the context of pilot programming that focuses solely on food-based recommendations and eliminates label reading activities could help answer these questions. Independent of more objective evaluations, however, it is important to note that the information included in the *Dietary Guidelines for Americans* is intended primarily for policy makers and public health professionals (USDA, 2020), whereas food-based guidance included in MyPlate resources was developed for communicating dietary advice with the public (Post et al., 2012).

### **Importance of Educators’ Involvement in Curriculum Development**

Finally, focus group discussions revealed a perceived disconnect between program leadership and the realities of program delivery in the community setting. EFNEP paraprofessionals provided feedback regarding the physical challenges of transporting and displaying specific curriculum components and indicated that some curriculum content seemed irrelevant to their participants. Evidence shows that programmatic impact is improved among EFNEP educators who report higher ratings of the value of EFNEP and the managerial practices of their supervisors (Dickin et al, 2005). Thus, these discussions highlight the importance of including educators in the curriculum development and revision processes and maintaining an ongoing dialogue throughout the implementation process, not just in EFNEP but in other community health, nutrition education, and FCS programs as well.

Of further note, providing EFNEP paraprofessionals with the opportunity to discuss challenges with each other within the context of the focus groups resulted in some paraprofessionals sharing their personal solutions to identified issues. Specifically, educators shared creative methods for transporting and displaying materials as well as procedural or logistic adaptations such as teaching a portion of the curriculum while a recipe was cooking or being served. This further illustrates a potential benefit of including educators in the curriculum revision process and harkens back to the concept of fidelity vs. adaptation, as these examples illustrate situations where adaptations may be beneficial and likely do not detract from the subject matter and learning concepts of a session.

### **Implications for Research and Practice**

A critical realization with any community-based programming is that the development of effective interventions is just the first step toward improving health; delivering effective programs within real world settings is a complicated process that often results in program diffusion and associated program drift (Durlak & DuPre, 2008). Maintaining an ongoing dialogue between program administrators and staff who are delivering programming in the field can inform needed updates to improve program outcomes and can help identify and resolve any tension between delivering the curriculum as intended and adapting programming to meet local needs. Although this evaluation is limited by its reliance on qualitative data from a small group of EFNEP paraprofessionals working with one specific curriculum, discussions within these focus groups highlight the importance of involving educators and members of the target population in curriculum development and curriculum revision processes and outline methods and topics of consideration for other community health, nutrition education, and FCS program leaders when applying general best practices for curriculum revisions (Baker et al., 2020).

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