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Barriers and Facilitators to Implementing Healthy Food Retail Programs: Extension Agents' Perceptions

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The purpose of this cross-sectional study was to understand the perceptions Extension professionals have about healthy food retail programs (HFRPs). Family and Consumer Science (FCS) agents from one state in the southeastern United States were interviewed about their definitions of HFRPs, what challenges and benefits existed, and strategies for successful HFRP implementation. Participants reported that HFRPs would bring immense benefits to their communities, including expanding the recognition of Extension. However, one specific suggestion that was identified was hands-on training needed before initiating HFRPs, particularly on strategies for relationship development with retail store owners.

Keywords: food environment, Extension programs, healthy food retail, Extension agent

Background

Modifying food environments have been studied as one approach to addressing the obesity epidemic in the United States, specifically supported by Bronfenbrenner's Socioecological Model (SEM) and Bandura's Social Cognitive Theory (SCT) (Bandura, 1977; Bronfenbrenner, 1989; Hall, 2018; Hill & Peters, 1998). These theories posit that relationships exist between environments and behaviors, and modifications in these environments may bolster individual behavior change. The food environment, which encompasses both the community and consumer environments, is one component of an individual's built environment. Community food environments are defined as food establishments accessible to an individual in a given geographical area. The consumer food environment is comprised of the food items available for acquisition at a food establishment (Glanz, 2009). Promotion of healthier food items (such as in

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grocery stores and small stores) have shown promising results in modifying both consumer and community food environments as well as improving dietary behaviors, which has the potential to decrease the risk for chronic disease (Cheadle, 1991; Morland et al., 2006; Powell et al., 2007; Steeves et al., 2014, 2015).

Healthy food retail programs (HFRPs) are one mechanism for promoting healthy food item purchases in food environments. Use of HFRPs as a means of obesity intervention research is common, with typical HFRPs including environment assessment, behavioral economic techniques, social marketing, and direct nutrition education programs to promote healthier food items (Ammerman et al., 2017; Downs et al., 2009; Gittelsohn et al., 2013; Glanz et al., 2012). Ammerman and colleagues outlined how these approaches may work with the Supplemental Nutrition Assistance Programs Education (SNAP-Ed), including utilization of choice architecture (i.e., healthier choices at eye level or on end caps), incorporation of cues to healthier food items (i.e., visually appealing areas/lighting for healthier food items), introduction of hyperbolic discounting for produce (i.e., stores offering free healthier food items as snacks for children while parents are shopping), and/or reduction of cognitive overload (i.e., floor signs to point shoppers to produce aisle) as key techniques to promote healthier food purchases in retail settings. The use of cues or nudges to buy healthier products has been commonly used in obesity prevention research; however, newer ideas of bundling food items to create a meal and placing this on an end cap with a recipe card is a bit more novel (Ammerman et al., 2017). Some research has indicated that HFRP interventions may positively impact dietary behaviors and eating patterns by using shelf-labeling, increasing customer purchases of healthier food items, and combining multiple methods of intervention (Adam & Jensen, 2016; Cameron et al., 2016)

Partnership with Extension as a means for implementing HFRPs is appropriate given Extension's mission to connect research to communities through outreach and evidence-based programming (Clark et al., 2017; Franz et al., 2014). Further, healthy food retail environments and consumer access to healthy food items have been a focus of Extension outreach nationally with a drive to increase programming with a Policy, Systems, and Environments (PSE) approach. Extension may be an especially appropriate avenue for educating the consumer about healthier food items via environmental and policy changes in local retail environments because of strong community connections. (Clark et al., 2017; Hamm & Bellows, 2003; McGuirt et al., 2018). For example, some states have worked with SNAP-Ed educators to assess healthy retail environments and pilot HFRPs that seek to increase healthy food availability in local stores (Anderson-Steeves et al., 2019; DeWitt & Byrd, 2018; Dobson et al., 2019; Tran et al., 2017). Before the partnership between rural Alabama convenience stores and Alabama Extension educators, the availability of healthier food items in stores was only 10 items per store on average. After the partnership program, there was an average of 34 items per store, with nearly 4,100 customers being reached each day (Tran et al., 2017). Research from Houghtaling et al. (2019) indicated that SNAP-authorized retailers perceived that labeling healthier food items and increasing access to healthier

food items at high-volume locations within the store were reasonable methods that would likely increase consumer purchase of these items.

Despite the potential benefit of these programs, limited research exists about Extension agents' understanding of HFRPs and their perceived challenges and pathways to implementing these programs. Clark et al. (2017) noted that Extension educators might not implement HFRPs because they do not feel prepared, suggesting a gap may exist between traditional direct delivery methods and the use of newer PSE approaches. Further, recent research from Haynes-Maslow et al. (2018) indicated that common HFRP settings such as supermarkets or grocery stores are less common sites that SNAP-Ed staff have implemented PSE approaches. Therefore, we undertook this study to better understand the perceptions of Extension professionals who did not have a history of implementing HFRPs. Our objectives were to

- Describe Extension agents' understanding of HFRPs and
- Determine Extension agents' perceived benefits and challenges of implementing HFRPs.

Method

This study included online interviews with Family and Consumer Science (FCS) agents in Tennessee. The study was approved by the University of Tennessee Institutional Review Board.

Participants

The research team obtained a list of all FCS agents ($n = 88$) working in Tennessee. The lead researcher and state specialist then contacted the Extension agents via email to introduce the study. The initial email included a link to a secure screening survey with an online consent form, followed by a brief demographic questionnaire that included age, gender, race/ethnicity, educational level, zip code, Extension role, length of time working as an Extension agent, the names of the counties and/or cities where they currently were spending most of their time working, and previous experience implementing HFRPs.

The research team confirmed study eligibility from the demographics survey. To be eligible for the study, participants had to meet the following criteria: (a) employed as an Extension agent in the state of Kentucky at the county level, (b) 18 years or older, (c) English-speaking, and (d) no previous experience with implementing HFRPs. No previous experience with HFRPs was defined as no role in the development, implementation, or evaluation of HFRPs as an FCS agent was included as an inclusion criterion because the goal of this research was to understand why some Extension agents were not engaging in HFRP implementation. Thirty individuals were eligible for the study.

All 30 individuals were invited via email twice to schedule a time for the survey. Seventy percent ($n = 21$) responded to the email invitations. Of the 21, two individuals were deemed ineligible to participate in the study based on their previous experience with HFRPs. Of those eligible ($n = 19$), 16 interviews were completed, resulting in a 53.3% response rate.

Qualitative Study Design and Theoretical Framework

This study employed a descriptive case study approach with a pragmatic methodology (Dewey, 1985; Merriam, 1998). A case study approach, as described extensively by Merriam (1998) and Stake (1995), was chosen to relate the unique and nuanced experiences of FCS agents in one state concerning HFRPs. Merriam described the case study as a single unit with boundaries, noting that it is often holistic and intensive in nature, seeking to describe and understand the uniqueness of a phenomenon of that bounded unit. Thus, the authors chose to define our “case” for this study as Extension Family and Consumer Science agents working in one state with no previous experience with HFRPs. For analysis, the authors further employed a pragmatic approach by acting as a “bricoleur” to mix qualitative methodologies and methods to better answer the research question. This often included the use of semi-structured interviews (not typically utilized in the case study approach) and thematic methods of analysis to interpret and re-interpret data as needed (Kincheloe, 2011; Lincoln & Denzin, 2003).

Description of the Interviews

The pragmatist methodology allowed flexibility based on the context of the particular research question as well as the queries of state Extension specialists wanting to know more about HFRPs in local communities. The authors developed interview questions (Table 1) based on the specific project goals, expert input, and a review of the HFRP literature (Clark et al., 2017; DeWitt & Byrd, 2018; McGuirt et al., 2018; Tran et al., 2017). Questions for the interview included definitions of HFRPs, potential challenges and benefits to implementation in their community, necessary training components, and ways to incorporate HFRPs in their current work. Questions were asked in a semi-structured manner, allowing for additional probing and questions based on participants’ responses during the session to allow for more in-depth responses (Frey & Fontana, 1991; Kvale & Brinkmann, 2009; Roulston, 2010). Questions were then reviewed by two nutrition faculty, two SNAP-Ed specialists, and two nutrition graduate students for clarity and content as a form of internal validity (Merriam, 1998).

Interviews were conducted electronically using an online conferencing software in August and September 2018. The interviewer was a doctoral student trained in both community nutrition and qualitative research; however, the interviewer was not employed by Extension and had no prior relationship with participants. Interviews were audio and video recorded, with the interviewer obtaining verbal consent to record before the start of each interview. Recordings were used for transcribing all interviews verbatim. After each interview was transcribed and verified by a second researcher for accuracy, all recordings were destroyed.

Table 1. HFRP Semi-Structured Interview Script

Interview Questions
Introductory Questions
<ol style="list-style-type: none"> 1. Can you tell me about the types of programs you do in your community? 2. In the past, what types of trainings for implementing programs have been helpful? <ol style="list-style-type: none"> a. What methods of training do you prefer? b. Probes: written plans, hybrid between in-person and through Zoom, online trainings through learning platform, videos
Questions Specific to HFRPs
<ol style="list-style-type: none"> 1. What comes to mind when you hear the words healthy food retail program? 2. How comfortable would you be with doing a healthy retail program in your county? 3. What would be some benefits of having a healthy food retail program in your community? 4. What are the challenges/barriers that could interfere with starting a healthy retail program in your community? <ol style="list-style-type: none"> a. Probe: Cost, safety, environment, facilities, time, partnership, buy-in from community, readiness, resources, access, etc. 5. How could healthy food retail programming be incorporated into the work you are already doing? 6. What support would be necessary from the regional or state level to implement a healthy retail program in your community? 7. Is there anything that you would recommend including in healthy retail training programs for an Extension professional? <ol style="list-style-type: none"> a. Probe: Pulling store owner, store terminology 8. What resources would you need to successfully implement an HFRP in your community? <ol style="list-style-type: none"> a. Probe: educational, incentive, human, financial

Data Analysis

Data were analyzed in a multi-stage, inductive, iterative process (Srivastava & Hopwood, 2009). The lead researcher reviewed the transcripts to develop an initial codebook. Thereafter, the codebook was updated iteratively during all stages of data analysis by the research team. The codebook was used to define codes, including levels and subcategories, and serve as a guide for the research team during analysis (MacQueen et al., 1998). Two researchers were then trained in the analysis protocols and instructed to analyze two interviews to test for inter-rater reliability, meeting a goal of greater than 80% agreement (Seale & Silverman, 1997). Quantitative analysis of the demographics was analyzed using JMP v.14. The two trained coders used NVivo to code independently; then, the coding team met weekly during the analysis process to discuss codes, add to the codebook, and resolve discrepancies once their codes were merged in the software. First cycle coding mechanisms included descriptive, process, values, and evaluative coding. After first cycle coding, code mapping was conducted in an Excel spreadsheet followed by focused and pattern coding as second cycle techniques in NVivo. Codes were categorized and analyzed using hierarchical maps, code landscaping, and coding matrices within interview question themes (Saldaña, 2015). After the two-coder team completed all data analysis and created an interpretation of the study results, a third reviewer, independent of the data collection and analysis process, reviewed all analysis processes, qualitative data, and results to ensure

appropriate categorization and that themes reflected original data sources. The third reviewer also provided feedback to the two-coder team for revisions to the analysis and interpretation.

Results

Demographics

The participants from the interviews were primarily white (87.5%), English-speaking only (100%), female (93.7%), and had worked for Extension for 0-5 years (37.5%). See Table 2.

Table 2. Characteristics of Extension Professionals Interviewed (n = 16)

Characteristic	Count (%)
Years in Extension	
0-5 years	6 (37.5)
6-10 years	2 (12.5)
11-20 years	5 (31.3)
21 or more years	3 (18.7)
Highest level of education	
Baccalaureate Degree	4 (25)
Advanced Degree	12 (75)
Gender	
Male	1 (6.3)
Female	15 (93.7)
Race	
White (non-Hispanic)	14 (87.5)
Black (non-Hispanic)	0 (0)
Hispanic or Latino	1 (6.3)
Biracial	1 (6.3)

Understanding of HFRPs by Extension Agents

Qualitative data that addressed the first objective of this study, to determine Extension agents' (who are not involved in implementing HFRPs) understanding of HFRPs, are included in Table 3. Themes centered around each participant's definition of HFRPs and/or how they viewed potentially implementing one of these programs in their county, including themes relating to how HFRPs, as a PSE approach, would require a different form of delivery than traditional direct education programs. Overall, participants had varying definitions of HFRPs and what key components would be. Only two participants identified HFRPs as PSE strategies, discussing environmental and policy changes within retail locations as appropriate approaches to include. Both participants also connected HFRPs to the SEM. The term "retail" was also difficult for many participants as they asked the interviewer to describe what type of retail outlet to discuss. Participants were guided to outline the retail outlets they associated with HFRPs, which was most often a large, commercial supermarket.

Table 3. Themes Related to Extension Agents' Understanding of HFRPs

Theme	Representative Quote
<i>Understanding of HFRPs</i>	
<ul style="list-style-type: none"> • Wide variance was reported in how participants defined “healthy food retail programs,” including increasing food availability in stores, teaching people how to shop, increasing fruit and vegetable intake, encouraging people to shop locally, using social marketing to sell healthier food items, providing recipes and demonstrations at grocery stores, and teaching people how to read food labels. • Places to acquire foods in their community are wide-reaching, including discount stores and local mom-and-pop stores. 	<ul style="list-style-type: none"> • “What comes to mind is working with our local retailers and making sure that they’re making the healthy choices more visible and more attractive for individuals to purchase as well as...And of course, that would include our farmers’ markets and making those accessible to everyone.” • “I would think teaching people how to shop wise in grocery stores and maybe even farmers’ markets included in that. So, when you think about retail, it’s just purchasing things, supplies but purchasing healthy alternatives.” • “Um, like when you have different...maybe like fact sheets or something like that the store like next to the healthy produce. Or maybe you have the agent there for a day doing like food samples or demonstrations of the store with the healthy foods.” • “...the non-traditional places, of course, like the Dollar General, the Dollar Tree. Sometimes places that we don’t think people go buy food from, but they do!”
<i>PSE Approach</i>	
<ul style="list-style-type: none"> • Transition of some programs, like HFRPs, from direct delivery to policy, systems, and environmental (PSE) change approaches is a different way of delivering programs. • Some expressed discomfort and unfamiliarity with how to report impacts. • Some hesitancy was specifically related to unfamiliarity with content, retail stores, and lack of experience with PSE. 	<ul style="list-style-type: none"> • “It’s a different kind of programming in that you’re not actually delivering a face-to-face program. So, you’re working with a retailer. They’re going to provide healthy options, and you’re not really there to see the results and to see what’s happening or... (pauses) I think it’s a very different kind of program, and I think we’re so used to just going and meeting face-to-face with people in a group or individually seeing the results right there and moving on. And so, I think that one of the barriers is thinking of programming in a different way.” • “...how we are going to report this and how are we going to show impact.” • “They’re going to provide healthy options, and you’re not really there to see the results and to see what’s happening.”

Benefits and Challenges of HFRPs Offered through Extension

Participants described several ways they saw HFRPs as potentially beneficial to the communities they served, but they also identified many potential challenges to implementing HFRPs (Table 3). Most participants expressed interest in learning about what types of community outreach

could be implemented through HFRPs. These interview findings also revealed a lack of knowledge or understanding of HFRPs and PSEs because the participants also identified one potential barrier to implementing HFRPs as a lack of participation in nutrition education direct delivery programs. Since HFRPs as a PSE approach do not include direct delivery approaches, this information indicated a lack of knowledge or understanding. In support of this knowledge gap, participants were often unable to describe HFRPs in the context of PSE strategies, with most explanations of challenges and barriers communicated as if it would be similar to nutrition education direct delivery programs.

Table 4. Themes Related to Benefits and Challenges of Implementing HFRPs According to Extension Agents

Theme	Representative Quote
<i>Potential benefits of HFRPs</i>	
<ul style="list-style-type: none"> • Community awareness <ul style="list-style-type: none"> ○ Participants described how large of an impact HFRPs may have in their communities. ○ HFRPs can bring increased exposure to Extension programs to new audiences. ○ Meeting the community where they are increases the potential for meeting those who need SNAP-Ed services most. • Learning <ul style="list-style-type: none"> ○ New opportunities for adult learners to develop skills outside of a traditional educational setting are created. ○ HFRPs may exist as solutions to helping consumers identify healthier food items and improve dietary behaviors even when using SNAP. ○ SNAP-Ed class participation may be increased by meeting potential participants in retail outlets. 	<ul style="list-style-type: none"> • “I think it would reach so many more people that I really don’t see now. And then maybe just familiarizing people with the UT Extension brand.” • “I think that type of program would increase the visibility of Extension, or maybe reaching new audiences, new people.” • “We need to meet them where they are at.” • “People are going to be at the grocery store may not have time to come classes. That something that we’ve seen is an issue and obviously with low-income population. They have a lot of barriers, but they’re eventually going to make it to the grocery store.” • “I think it would help the consumer see that eating healthy is not necessarily too expensive or out of their budget and that actually more of the quote junk food and overly processed foods are actually more expensive in the long run, in terms of not only for your health but long-term health impacts.” • “Well, I think I’m for one, and I think a national thing, but it’s hard to get people to come to SNAP-Ed classes just because it’s totally volunteer. It’s not required, and it is a time commitment. It’s normally one hour in a series of eight classes. So, a lot of adults don’t have time. But, adults do go to the grocery store. That’s just something that you have to do. So, I think meeting people where they are because they are going to be at the grocery store or the convenience store.”

Theme	Representative Quote
<i>Potential challenges for HFRPs</i>	
<ul style="list-style-type: none"> • Challenges of implementing programs in store <ul style="list-style-type: none"> ○ Getting community members to participate in the education may be difficult. 	<ul style="list-style-type: none"> • “When people are shopping, they are shopping. They are not going to listen to a five or ten-minute talk.”
<ul style="list-style-type: none"> • Collaboration with retail partners <ul style="list-style-type: none"> ○ Relationships must be developed with stores to implement HFRPs. ○ It takes time and resources to develop partnerships with retail stores, especially larger, corporate-based retail outlets, including how to promote one over another. ○ There is a need for training to work with retail partners. 	<ul style="list-style-type: none"> • “Then, to say you know maybe at a higher level they had a relationship established [at a retail food outlet] so it’s easier for agents in other counties ... The idea is to eliminate some of the groundwork to sell it. You already have like their management sold on it; then it’s easier sometimes.” • “Then I guess again just having the time management or times to make those connections with the right people. Finding out where is the first part of contact with those stores. Who is the person? Is it the store manager, or is it corporate? Do you start out with someone you know that works at that store? Or what is the protocol, I guess.” • “I think just effective ways of working with businesses. You know, we have to speak their language, so yes, terminology. They’re busy, so understanding, you know, how to market the programs in a way that they’re going to, we’re going to get their buy-in, and you know, I’m not going to turn them off.”
<ul style="list-style-type: none"> • Assistance from paraprofessionals <ul style="list-style-type: none"> ○ Some of those interviewed did not have paraprofessionals and cited this as a limiting factor. 	<ul style="list-style-type: none"> • “I don’t have a program assistant, so and that makes a huge difference in what I do with the SNAP-Ed program.”

Strategies for Successfully Implementing HFRPs

Specific information regarding how Extension agents would implement HFRPs in their local community is provided in Table 5. Many participants discussed a nutrition education program implemented in farmers’ markets in some counties as an appropriate model for implementation for HFRPs, despite differences in working with retail partners. They reported that the key components of this program (recipe cards, marketing materials, food demonstrations, nutrition education incentives) were well-suited for modification to a retail setting. However, despite perceived similarities to the farmers’ market program, participants did not think of HFRPs as a smaller portion of the existing program. Instead, they viewed HFRPs as stand-alone programs. Many participants discussed particular direct delivery components of HFRPs when discussing successful implementation, not considering some of the broader PSE strategies employed in

typical HFRPs. A few participants did discuss the relationship between HFRPs and PSE, but these participants also expressed a background in public health and/or nutrition with some familiarity with implementing HFRPs.

Table 5. Themes Related to the Implementation of HFRPs by Extension Agents

Theme	Representative Quote
<i>Training</i>	
<ul style="list-style-type: none"> • Those who have had more formal training in nutrition felt more comfortable implementing HFRPs. • Many participants expressed the need for additional training to feel comfortable implementing a potential program. 	<ul style="list-style-type: none"> • “I could definitely do that. As a dietetic intern, I did grocery store tours and things like that. So, totally comfortable.” • “I would not be very comfortable with that. I don’t work a lot with retailers, for one thing. I’m mostly used to working with agencies and things like that.”
<i>Incorporation of HFRPs into other programs</i>	
<ul style="list-style-type: none"> • Many felt that HFRPs would best be implemented as a stand-alone program. 	<ul style="list-style-type: none"> • “The thing I see it being closest to is Farmers’ Market Fresh. I could see those two perhaps meshing together in some way. I can see it as one lesson in a larger program that as far as meshing it with a program out right now, I’m not seeing how that would work.”
<i>Importance of prepared programs</i>	
<ul style="list-style-type: none"> • The importance of having the program fully ready to go and presented in its complete format was immense. • Participants also wanted to understand the program’s expectations as well as intended outcomes first. 	<ul style="list-style-type: none"> • “...provided an out-of-the-box prepped and ready to go out of the box curriculum.” • “I would actually like to know exactly what the expectations were.”

In summary, our findings indicate that FCS agents in this study could benefit from training that defines and describes HFRPs. Agents unfamiliar with HFRPs had a difficult time conceptualizing it as part of an overall PSE strategy. In many cases, agents framed their discussion of HFRPs in terms of direct education. Finally, Extension FCS agents in this study exhibited difficulty in defining the term retail. When discussing this term, they often discussed retail in the context of large, chain stores only. A strategic course of action that incorporates HFRPs into the Extension plan of work while at the same time allowing opportunities for agent training on this topic is needed.

Discussion

Healthy food retail programs are an emerging area for Extension programming, but there is little evidence why some Extension professionals are not choosing to implement these programs. The objective of this qualitative study was to better understand the perceptions of FCS agents who had not implemented HFRPs as well as their perceptions of potential benefits and challenges that might be faced implementing HFRPs. Findings from online interviews of FCS agents directly involved in SNAP-Ed programming revealed the need for a better understanding of what HFRPs are and training prior to implementation. The misunderstandings or lack of knowledge related to HFRPs and PSE may pose a considerable barrier to implementing HFRPs through Extension. Successful implementation of HFRPs would require adequate training to increase agents' comfort level as well as develop the knowledge and skills needed for successful program delivery.

Based on results from this study, there is a potential for a broad approach to ensuring that Extension professionals understand PSE interventions, including the potential need for additional training in the implementation and evaluation of this new approach. Direct feedback from the participants in this study indicated that Extension agents unfamiliar with HFRPs had difficulty identifying it as a PSE intervention and were associating many of the definitions as direct delivery education. Although direct delivery of materials and marketing may be one component of HFRPs, Ammerman (2017) reported that successful HFRPs require environmental, social, and behavioral approaches to the way that consumers interact when acquiring food items. Because agents had difficulty distinguishing between direct nutrition education and HFRPs as part of larger PSE efforts, Extension specialists are advised to help agents understand HFRPs as part of PSE strategy interventions. With a better understanding of PSE's overall, agents could then be trained in HFRP interventions, including how these interventions function as part of overall PSE efforts. If agents do not have a foundational understanding of PSE interventions, then their efforts may fail in regard to understanding HFRPs and the larger PSE interventions that are encompassed in this type of programming. These findings are consistent with other literature regarding lack of PSE knowledge at a local level as well as the impact on Extension interventions it may have (Haynes-Maslow et al., 2018; Smathers & Lobb, 2015; Smathers et al., 2018; Stark et al., 2016).

Another key finding from this study was how Extension agents unfamiliar with HFRPs defined the term retail. Agents reported struggling to conceptualize the term retail, with many of them asking for additional clarification regarding what this term meant in the context of the study. For others, retail was thought of as large chain stores. While large chain stores are indeed part of retail and could be part of HFRP program implementation, it is evident that agents need more education to enable them to broaden their conceptualization of food retail to include smaller outlets and farmers' markets. Such a broader conceptualization of food retail must include work with smaller, locally owned food retailers, such as corner stores and community grocery stores.

In addition to education regarding retail, training will also be needed to help Extension professionals learn new techniques of interacting with food retailers to develop partnerships for future HFRP implementation. This was also consistent with the Haynes-Maslow et al. (2018) findings regarding concern from SNAP-Ed staff about “buy-in” for PSE interventions in the retail setting.

Findings from this study serve as a call to action for Extension professionals who desire to advance HFRPs and multi-level intervention approaches of SNAP-Ed in general. For Extension to be a leader in implementing HFRPs, Extension faculty and state specialists are advised to give attention to developing a strategic course of action for integrating HFRPs into the Extension scope of work. While this strategic course should include planned HFRP interventions grounded in research and supported by well-formulated implementation plans, work cannot stop there. Instead, Extension faculty and state specialists are advised to consider what training and/or resources will be necessary to help Extension educators and/ or paraprofessionals develop a foundational understanding of HFRPs.

Preparing Extension educators and/or paraprofessionals with this basic understanding is critical especially considering findings from this study. Haynes-Maslow et al. (2018) note that SNAP-Ed staff in their study directly stated that state-level Extension specialists should be providing further training on PSE approaches to increase basic understanding of the topic.

It is important to note that Extension faculty and state specialists do not have to create HFRP training resources in isolation. Instead, they can build from the work and successes of other Extension programs and non-profits in HFRP implementation while fostering collaboration among those individuals interested in advancing HFRP work. Such collaboration can create synergy and foster additional support for Extension HFRPs. This concept of building partnerships to bolster HFRPs is an established key practice noted by Haynes-Maslow et al. (2018). Finally, the SNAP-Ed framework can guide Extension faculty and state specialists as they design and facilitate HFRPs in their respective states (U.S. Department of Agriculture, Food and Nutrition Service, 2016). The SNAP-Ed framework is an excellent resource for helping Extension educators and/or paraprofessionals better understand the basics of HFRPs and PSE interventions in general. The design of the SNAP-Ed framework is such that agents and/or paraprofessionals can more fully understand how HFRPs are integrated into larger, multi-level intervention strategies geared toward improving the health of limited-resource individuals and communities.

Limitations of the study included the generalizability of the findings based on the sample’s specificity to one geographic location. Because Extension varies widely from each area and region, it can be difficult to capture significant experiences and perceptions of Extension professionals on a national scale. Thus, the findings in this study are limited to the population sampled. However, there has been some research about the lack of understanding of the PSE

approach and HFRPs in Extension networks nationally, and the findings from this study are consistent with other current literature (Smathers & Lobb, 2015; Smathers et al., 2018; Stark et al., 2016). Another limitation is the potential bias and sensitive nature of conducting interviews in a workplace setting. Participants may have been less likely to share openly due to concern of supervisors finding their responses undesirable. To mitigate this limitation, the authors utilized an interviewer that is outside of the organization, and participant demographic information was kept separate from all interview data and not shared with other authors on the study. A final limitation of this study is the low response rate. While this low-response rate could indicate self-selection bias, the authors collected a demographic screener before the interview to better understand the geographical distribution, years working in Extension, gender, age, and experience with HFRPs to ensure that the sample was representative of Extension agents in the area.

Conclusion and Implications

PSE strategies, such as HFRPs, can be incorporated into traditional Extension programming to complement direct education focused at the individual level. While Extension agents perceived HFRPs as beneficial, there is a need for more extensive training in what it means and how it can be implemented and evaluated. This training should include ways to develop partnerships with retailers who are key stakeholders to create effective strategies that are sustainable. Adequately preparing agents to work with food retail is critical for success to expand their reach from working at the individual level to multiple levels in the SEM as indicated in the PSE approach (Bronfenbrenner, 1989).

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