

Utilizing Family and Consumer Sciences' Expertise to Enhance Healthy Food Choices in a Rural Latino Community

Bernice A. Dodor

East Carolina University

Cheryl A. Johnson

East Carolina University

Judith Reyes

East Carolina University

Jessica Edwards

East Carolina University

This article describes the implementation of a nutrition program by family and consumer sciences (FCS) educators in a rural Latino community in Spring 2020. The "Healthy for Life" curriculum from the American Heart Association and Aramark provided the curriculum for this effort. This program was offered with funding from the American Association of Family and Consumer Sciences. FCS educators worked in collaboration with the local chapter of the Association of Mexicans in North Carolina. A Latina graduate student provided translation as needed. A detailed program description, data on the participants, reflections from facilitators, and best practice recommendations for community programs for FCS educators are provided.

Family and consumer sciences (FCS) is a profession concerned for the well-being of individuals, families, and communities (American Home Economics Association, 1994; Nickols et al., 2009). Developing formal connections between FCS educators and communities requires collaboration among constituents. This is a report on a recent collaboration that connected a large university in the southeastern United States with a rural under-served community. Resources from the American Association of Family and Consumer Sciences (AAFCS), combined with the expertise of secondary and post-secondary FCS educators, delivered a community nutrition program using the Healthy for Life curriculum from the American Heart Association (AHA) and Aramark to empower Latino families.

Literature Review

Obesity is one of the most challenging health issues in the United States. Research from 2018 indicates Hispanic adults were more obese (44.8 %) than White (42.2 %) and Asian (17.4 %) peers (National Health and Nutrition Examination Survey, 2017-2018). Latino households are more likely to experience food insecurity (22.4 %), compared to 14 % for all households in the U.S. (Rabbitt et al., 2016).

Research suggests that food availability at home, parental diet, and familial eating habits play an important role in the diet quality of Hispanic children (Santiago-Torres et al., 2014).

Also, food resources and information, language acculturation, and environmental promotive factors are associated with protective dietary patterns (Torres-Aguilar et al., 2016).

To provide effective interventions, it is important to understand Latino beliefs and attitudes regarding healthy eating and their perceived barriers of adopting healthy eating patterns (Beck et al., 2019). Martínez (2016) found that healthy foods were those considered natural, minimally processed, and homemade in Latino families. Eating well was accomplished when everything on one's plate was eaten, everyone felt full, and meals were shared among family or an intimate group.

Because most Latino families value home cooking, healthy eating interventions should support meals made at home while including cost-conscious suggestions for increasing healthy eating in the context of traditional meals (Beck et al., 2019). Women are most often in charge of cooking responsibilities as well as assessing what is good for the family (Martínez, 2016). Taverno Ross et al. (2018) found some of the external factors that negatively affect a Latino family's healthy living included lack of time, cost of healthy foods, weather, and school. Similarly, the school environment and food available to them have an impact (Beck et al., 2019). Taverno Ross et al. (2018) found a barrier to a healthy lifestyle was the concept of *acustumbrados* which means being used to a certain lifestyle; Latino people are used to following specific routines, eating large portions of foods, and foods prepared with large amounts of fat and oil.

Beck et al. (2019) found Latinos in their study held misconceptions about nutrition including equating "organic" and "expensive" as healthy and had difficulty in recognizing sugar in beverages and foods. Arcan et al. (2018) found Latino parents expressed limited knowledge about local and American foods. Education that supports and refines Latinos' existing knowledge of healthy eating and addressing the misconceptions they have is an important component for healthy eating interventions (Beck et al., 2019). Taverno Ross et al. (2018) note that increasing self-efficacy (healthy recipe preparation, and physical activity breaks) and skills (self-monitoring) to promote a healthy life may be beneficial for Latinos. Wilson et al. (2018) suggest effective nutrition label use could help Latinos identify the healthfulness of foods more effectively so they can make better dietary choices. Also, language acculturation was found to be positively associated with protective dietary patterns because knowing English can be used as a tool to evaluate and make better food choices (Torres-Aguilar et al., 2016).

When it comes to improving the well-being of families and communities, FCS extension agents often provide education on important issues that impact families. In North Carolina, FCS agents' offices are situated in each county to deliver a research-based knowledge and education in FCS core areas such as nutrition, health, food safety, and local food systems at the state and local county levels. FCS agents also speak to significant community issues associated with housing, parenting, family resource management, human development, and aging to help families improve their well-being (About Family and Consumer Sciences, n.d.). Recent research found that nutrition education offered by FCS extension agents among Spanish-speaking adults had a tremendous impact not only on the individuals and their families involved in the study (Stotz et al., 2021). Nutrition education should include the whole family and activities in nutrition classes should be home-based (Stotz et al., 2021) to encourage healthy choices with realistic situations that provide quality time for all family members. When families are educated on healthy choices together, it alleviates the challenge of differing family preferences in food and activity. Nutrition education can also include culturally relevant topics, such as food preferences, cultural food-related practices, and country-specific vocabulary and jargon (Stotz et al., 2021).

In a thesis arguing the benefits of FCS education in schools, Shaw (2019) reflected that, FCS education can also teach teamwork, respect, and time management in addition to learning about nutrition. Italo (2020) indicated food preparation as one of the key skills important to FCS education programs for individuals, families, and communities. Skills that successful FCS educators can employ to connect with students include relationship building, cultural knowledge, communication skills, and reflecting on their own personal biases and ethical decision making (Rehm & Allison, 2006).

Program Description

AAFCS sent out a call for grant proposals in the Fall of 2019 for implementation of the *Healthy for Life* community nutrition program. A \$2500 grant was received to support program development and delivery. Funding requirements included webinar training, offering at least four educational experiences over 2-3 months using the American Heart Association (AHA) and Aramark curriculum, and collecting data on food, nutrition, and health habits of participants before and after the program. The project was approved by the Institutional Review Board (IRB) at the authors' university.

The community partner selected for the program was the local chapter of the Association of Mexicans in a southern state (AMEXCAN). Program facilitators included FCS faculty with experience in delivering workshops in educational and community settings, and a local FCS secondary teacher familiar with teaching foods and nutrition with this population in the area schools. A Latina graduate assistant who is a heritage Spanish speaker served as our main interpreter along with her friend who was a native Spanish speaker. In addition, two native Spanish speakers and two heritage Spanish speakers who were volunteers and staff with the AMEXCAN program helped during the implementation by explaining and collecting consent forms, handing out materials, and assisting during Q and A portions of the sessions.

Four sessions were planned; however, the COVID-19 pandemic interrupted the program so only three sessions were delivered. At the beginning of each session, participants signed a permission form to use their photos and during the first session they completed a short survey provided by AHA and Aramark. This was a pre-assessment on food, nutrition and health habits and was a requirement of the grant funding and the AHA for using their curriculum. It was grounded in theory and according to AHA the instrument was valid and reliable. All handouts, permission forms, and surveys were provided in Spanish by AHA and Aramark and were also available in English. PowerPoint presentations were developed in Spanish by the graduate assistant that followed the AHA facilitator script and materials for each session, so we could have a visual in Spanish up on the board during the demonstrations that accompanied the handouts that AHA and Aramark provided in Spanish.

Each session was held at the AMEXCAN community center in a classroom style setting. The director of AMEXCAN recruited participants for the sessions by providing other programming prior to the session to ensure participation. Because of this, there were new participants at each session, which was unknown to us until we arrived at the second session. Therefore, data were not collected after the first session. The university IRB prohibited us from collecting addresses or contact information from participants, so we were not able to follow up and do any post virtual programming when COVID interrupted our program; nor were we able to do any post assessment. Following is a detailed description of each session. Healthy snacks and or meals were provided at the end of each session as reinforcement of the nutritional curriculum and to encourage participants to return for future sessions.

Session One: February 8, 2020

The participants for the first workshop, *Eat a Rainbow: Colorful, Seasonal Fruits and Veggies*, consisted of 30 Latino participants. The FCS educator facilitated the session. The focus was the need to eat a variety of fruits and vegetables and their nutritional value. Participants watched a video on preparing a simple Persian Salad, which was then demonstrated by the FCS educator. The FCS educator also discussed a comparison of food labels on canned, dried, or frozen fruits and vegetables, and emphasized selecting those with less or no added sodium or sugars with fresh produce as the optimal choice. Shopping tips for selecting fresh produce were discussed with a focus as purchasing seasonal produce (e.g., radish and peas in spring, berries or melon in summer). Participants were encouraged to add daily to their plate from five color groups: (1) red and pink, (2) blue and purple, (3) yellow and orange, (4) white and brown, and (5) green fresh produce. At the end of the session, fresh food bags with fruits and vegetables that included an example of each of the five color groups were given away to five randomly selected participants.

Summary of Session One Participants' Survey Responses

The 30 participants who completed the AHA survey on food choices and eating habits, ranged in age from 18 to 54. The majority were women (67 %); over 50 % of participants had less than a high school education, and 7 % had some college education or vocational training. Eighty percent of the sample had one to three children under the age of 18 living at home. Nearly half (48 %) of participants indicated they are the only person in the household who prepares meals, while 35 % indicated they share meal preparation equally. Over half of participants were mostly to totally confident in preparing healthy meals, while 35 % had little to no confidence. When asked about confidence in their ability to eat recommended serving sizes, 50 % of participants reported they were mostly or totally confident compared to 39 % with little or no confidence. In addition, 52 % indicated they were confident in their ability to substitute healthier cooking and preparation methods for traditionally fried foods.

Survey findings indicated most participants were not eating recommended daily servings of vegetables with over 60 % eating or drinking only one or no servings of vegetables. Only 36 % of participants indicated they ate or drank two to three servings of fruits per day. For whole grains, 76 % of participants reported eating no more than one serving of whole grains each day. When participants were asked whether they plan meals before shopping, over 34 % indicated they never or rarely plan their meals with 42 % always or often planning meals. A total of 44 % of participants rarely or never read food labels or checked the nutritional value when purchasing food. A total of 15 % always read the label and checked the nutritional value.

Session Two: February 29, 2020

A total of 55 Latino participants attended the second workshop session: *Snack Smarter*. The FCS educator facilitated the session where participants learned about the role of food in overall health and well-being, tips for eating more tasty and nutritious foods, and healthful food sizes for major food groups. Participants watched videos on making avocado toast, examples of serving sizes, and various tips to help families eat better. Afterwards the FCS educator demonstrated the avocado toast recipe and answered participants' many questions related to the serving sizes of a variety of foods by going to MyPlate websites during the presentation. Again,

bags of food were given away randomly to five participants: These bags of food contained healthy snack foods such as whole grain crackers, peanut butter, and light cheese sticks.

Session Three: March 7, 2020

For the third workshop: *Feed Your Potential*, there were 23 Latino participants. The secondary FCS educator was unavailable for this session, so the post-secondary FCS education faculty facilitated this session. Participants expanded their knowledge about different food groups, serving sizes, and how different foods directly impact energy and focus. A nutritious snack, apple nachos, that can be easily prepared at home was demonstrated. This snack featured items from three major healthy food groups: (1) vegetables, (2) fruits, and (3) protein foods (incorporating nuts, seeds, and legumes). Participants were actively engaged in the discussion and shared their personal struggles with eating healthy meals in the recommended serving sizes. Food bags containing staple items such as whole grain pasta, rice, and dried beans were given to five randomly selected participants.

Program Reflections

The outcomes of this program as a promising practices approach to deliver needed FCS content in the community are shared through the reflections of all the stakeholders involved. The purpose of sharing the reflections is to help those who may choose to replicate this program or develop similar programs.

FCS Educator Reflection

The FCS educator stated:

While I have worked with Latino students before in my classroom, this was my first opportunity working with adults in the Latino community and using a translator. The participants were extremely welcoming and listened and asked questions throughout the presentations. Much of the information from the script was read in Spanish by the translator, but the participants were able to engage with me during the question-and-answer sessions as I was being interpreted. Participants had many questions regarding healthier options for snacks, and how to understand nutrition labels. They were very engaged in learning about small changes that would impact nutritional outcomes for snacks and meals. Meal preparation for the week and ways to store meals for the workday instead of eating fast food were discussed. They asked some questions about the food items I was demonstrating and gave feedback on the taste and ease of preparation for each item. As indicated by the data, many of those who attended the session primarily handled food preparation at their home. I think that showing them simple ways to prepare healthier options and answering their questions on nutrition labels and food choices helped the participants.

Faculty Reflections

Faculty reported participants were unaware of key nutritional information like healthier portion/serving sizes, importance of selecting foods from all food groups, and how to read nutritional labels. Participants enjoyed seeing the recipes prepared by the facilitators, trying the foods, and having healthy snacks and meals together. One faculty member reflected,

One unique aspect of the program is the fact that it was easily delivered to the Latino community because it was all translated into Spanish: consent forms, surveys, and all session materials including the videos. We attempted to be relevant by selecting items for the food bags that are common in the Latino community and by asking questions about their food choices, recipes, and family meals.

Graduate Assistant Interpreter Reflection

The Spanish interpreter reflected:

As a member of the Latino community, I enjoy working with them. I was happy that I was able to be a part of the *Healthy for Life* project and that I was able to contribute to this opportunity of bringing information on healthy eating behaviors to an underserved community. The participants were very welcoming of us and were thankful that we took the time to share information, and resources, and gave them something to leave with. I remember having a few participants talk to me at the end of the sessions and tell me how much it meant to them that we took the time to have this presentation and just overall showing me their gratitude. My takeaway of this project is that it is important work that should continue as many individuals from this community do not have access to many resources and information. Many participants expressed this was the first time that they heard of many of the nutritional facts and serving/portion sizes. The participants loved having a teacher who specializes in nutrition. Participants asked various questions they otherwise might not have been able to get the answers to.

Participant Reflections

Although we did not collect participant comments in a formal way, some of the comments that we heard a few times at each session included that participants were glad there are programs like *Healthy for Life* in Spanish because the Latino community often is not aware of many resources. They said they were thankful to be provided information to help improve their health and well-being. In addition, at one session, one participant mentioned she was glad to know some of the foods she already eats are considered healthy, but the workshop helped her learn how to make it healthier and taught her the importance of an appropriate serving size.

Discussion and Implications for Best Practice

Program Implementation Challenges and Barriers

Enrollment was not consistent across the three workshops conducted which affected the research process. All community members were invited by the community partner. We assumed that those who attended the first session were those who would be returning for the other sessions. We expressed this clearly during planning. The intent of the grant and the use of the pre- and post-assessment by the American Heart Association (AHA) was intended to show participants' change in food, nutrition, and health habits after attending four different sessions over a two-to-three-month period. Once we arrived for the second session, we realized the participants were all new. We were not prepared to have them take the pre-assessment, so we only collected permission forms for the photos for sessions two and three. The community partner indicated that because they were offering other programming in the morning before our session that they knew we could have available participants. They did not want to limit who

could attend. Participants were actively engaged during the educational sessions. They shared personal experiences and struggles with eating and preparing healthy meals. They asked many questions about portion sizes. The FCS educator introduced *MyPlate/Let's Move* websites and accessed the Spanish versions of each site. She reviewed how to measure portion sizes using examples of foods they may already have at home. Due to the COVID-19 shutdown, the final session was not possible.

A clearer understanding between the researchers and the community partner about the importance of consistency for follow up data would have improved the program and should be a requirement for future programs. The large size of the groups did not allow for participants to prepare the recipes with facilitators, which was suggested by the authors of the AHA and Aramark curriculum. We were limited to our location which was a classroom with a small kitchen in another room. Future programming should be done in a setting that has multiple kitchens and workspace and we recommend a FCS culinary or food laboratory at local secondary school. Using such a lab would require more coordination, planning, and costs for the facility use, possible transportation for the participants, and childcare. Delivery of the materials using the demonstration style approach worked but when the group was very large, Q and A was more limited. Recruiting specific participants who agree to attend multiple sessions is more complicated because of the reliance on the community partner and the language barrier. It is also important to note that some of the participants were migrant workers, which may limit their ability to continue in the program over several sessions.

Having a facilitator who speaks Spanish fluently and is also skilled in food preparation would have improved the flow of the sessions. FCS extension professionals could also assist in collaborating with the FCS educators from the schools to deliver similar nutrition education programming. The AAFCS partnership allowed the university access to the Latino rural community to provide a needed service. Providing these workshops also gave a platform to educate about the importance of FCS programs in this community.

Value of FCS Educator Expertise

Using the expertise of a local FCS teacher who teaches food and nutrition courses in a local high school was a significant part of the success of the program sessions delivery. The facilitator for two of the sessions was a skilled FCS teacher who demonstrated the recipes for the group. The experience and confidence of an active FCS educator provided an extremely valuable resource, especially when modifying demonstration style delivery, due to larger numbers of participants than anticipated. Because of her skills as a teacher with different sized classes and diverse populations, she was able to demonstrate effectively while the interpreter was able to maintain the communication stream with participants.

Conclusion

This collaborative community nutrition project with FCS educators at the secondary and post-secondary level proved beneficial to the Latino participants. Demonstrating healthy recipes that can be easily prepared at home is supported by research suggesting Latinos prefer cooking meals at home (Beck et al., 2019). An emphasis on using recommended serving sizes, choosing healthy foods, and having recipes and materials available in Spanish, assisted our participants and their families to make steps to overcome the barriers to cooking and eating healthy meals at home (Taverno Ross et al., 2018). FCS educators are uniquely positioned to utilize their content

knowledge and teaching skills to implement culturally appropriate nutritional programming in communities where knowledge, resources, and education for adults is lacking.

References

- About Family and Consumer Sciences. (n.d.). <https://www.ces.ncsu.edu/about-fcs/>
- American Association of Family and Consumer Sciences. (2021). About us. Retrieved from <https://www.aafcs.org/about/about-us>
- American Heart Association's (AHA) Healthy for Life® 20 By 20 community nutrition. <https://www.aafcs.org/events/event-description?CalendarEventKey=6d18ca69-5d2b-4602-81b9-298adc192262&Home=%2Fhome>
- American Association of Family and Consumer Sciences. (2010). Beaton named AAFCS national teacher of year merit finalist for outstanding food and nutrition program. *States News Service*. <https://link.gale.com/apps/doc/A224930295/BIC?u=ncliveecu&sid=BIC&xid=8692918a>
- American Home Economics Association [AHEA]. (1994). Conceptual framework and proposed name for the profession. In *The Scottsdale meeting: Positioning the profession for the 21st century* (pp. A-5-A-7). Alexandria, VA: Author.
- Arcan, C., Culhane-Pera, K. A., Pergament, S., Rosas-Lee, M., & Xiong, M. B. (2018). Somali, Latino and Hmong parents' perceptions and approaches about raising healthy-weight children: A community-based participatory research study. *Public Health Nutrition*, 21(6), 1079-1093. <https://pubmed.ncbi.nlm.nih.gov/28803597/>
- Beck, A. L., Iturralde, E., Haya-Fisher, J., Kim, S., Keeton, V., & Fernandez, A. (2019). Barriers and facilitators to healthy eating among low-income Latino adolescents. *Appetite*, 138, 215-222. <https://pubmed.ncbi.nlm.nih.gov/30954634/>
- Family and Consumer Science Education. (2021). *Family and consumer sciences education goals and purposes, history of family and consumer sciences education, issues major trends and controversies*. State University. <https://education.stateuniversity.com/pages/1976/Family-Consumer-Sciences-Education.html>
- Italoye, I. (2020). *Importance of home economics to individuals, family and nation*. Nigerian Infopedia. <https://nigerianinfopedia.com.ng/importance-of-home-economics-to-individuals-family-nation/>
- Martínez, A. D. (2016). Comiendo bien: The production of Latinidad through the performance of healthy eating among Latino immigrant families in San Francisco: Comiendo bien. *Symbolic Interaction*, 39(1), 66-85. <https://onlinelibrary.wiley.com/doi/abs/10.1002/symb.218>

- National Health and Nutrition Examination Survey (NHANES). (2017-2018) Centers for Disease Control and Prevention.
<https://www.cdc.gov/nchs/products/databriefs/db360.htm#:~:text=The%20age%2Dadjusted%20prevalence%20of%20obesity%20among%20U.S.%20adults%20was,adults%20aged%2060%20and%20over>
- Nickols, S. Y., Ralston, P. A., Anderson, C., Browne, L., Schroeder, G., Thomas, S. & Wild, P. (2009). The family and consumer sciences body of knowledge and the cultural kaleidoscope: Research opportunities and challenges. *Family and Consumer Sciences Research Journal*, 37(3), 266-283 <https://doi.org/10.1177/1077727X08329561>
- Rabbitt, M. P., Smith, M. D., & Coleman-Jensen, A. (2016). Food security among Hispanic adults in the United States. *Economic Research Service*. Economic Information Bulletin 153.
- Rehm, M. L. & Allison, B. N. (2006). Cultural diversity in family and consumer sciences: teachers' beliefs and recommendations for teacher education. *Journal of Family and Consumer Sciences Education*, 24(1).
<https://www.natefac.org/Pages/v24no1/v24no1Rhem.pdf>
- Santiago-Torres, M., Adams, A. K., Carrel, A. L., LaRowe, T. L., & Schoeller, D. A. (2014). Home food availability, parental dietary intake, and familial eating habits influence the diet quality of urban Hispanic children. *Childhood obesity*, 10(5), 408-415.
<https://pubmed.ncbi.nlm.nih.gov/25259675/>
- Shaw, J. (2019). The benefits of family and consumer science education: One educators' quest to find meaning through self-discovery and holistic teaching. [Graduate College Dissertations and theses]. <https://scholarworks.uvm.edu/graddis/987>
- Stotz, S., Habibi, M., Sanville, L., Cotto-Rivera, E., Soler, A., Powell, A., ... & Lee, J. S. (2021). Adapting a nutrition education curriculum for Spanish-speaking adults experiencing low-income: Recommendations from key stakeholders. *Ecology of Food and Nutrition*, 1-14.
- Taverno Ross, S. E., Macia, L., Documét, P. I., Escribano, C., Kazemi Naderi, T., & Smith Tapia, I. (2018). Latino parents' perceptions of physical activity and healthy eating: At the intersection of culture, family, and health. *Journal of Nutrition Education and Behavior*, 50(10), 968-976. <https://pubmed.ncbi.nlm.nih.gov/29954715/>
- Torres-Aguilar, P., Teran-Garcia, M., Wiley, A., Raffaelli, M., & Morales, M. (2016). Factors correlated to protective and risk dietary patterns in immigrant Latino mothers in non-metropolitan rural communities. *Journal of immigrant and minority health*, 18(3), 652-659.

Wilson, M. D., Ramírez, A. S., Arsenault, J. E., & Miller, L. M. S. (2018). Nutrition label use and its association with dietary quality among Latinos: The roles of poverty and acculturation. *Journal of Nutrition Education and Behavior*, 50(9), 876-887.

About the Authors

Bernice A. Dodor is an Associate Professor in the Department of Human Development and Family Science in the College of Health and Human Performance at East Carolina University, Greenville, North Carolina.

Cheryl A. Johnson is an Associate Professor and Program Coordinator of Family and Consumer Sciences Education in the Department of Human Development and Family Science in the College of Health and Human Performance at East Carolina University, Greenville, North Carolina.

Judith Reyes is a graduate student in the Marriage and family Therapy program in the Department of Human Development and Family Science in the College of Health and Human Performance at East Carolina University, Greenville, North Carolina.

Jessica Edwards is the Curriculum & Instructional Management Coordinator in Career & Technical Education for Pitt County Schools, Greenville, North Carolina.

Citation

Dodor, B.A., Johnson, C.A., Reyes, J., & Edwards, J. (2021, Spring). Utilizing FCS expertise to enhance healthy food choices in a rural Latino community. *Journal of Family and Consumer Sciences Education*, 38(1), 41-50.