Using Community-Based Participatory Research to Create a Healthy Latinx Cookbook for Progreso Latino

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BACKGROUND

- **Obesity is a chronic disease of pandemic proportion that disproportionately burdens people of Hispanic/Latinx heritage.[1]**
- **Prior focus group research showed lack of nutrition guidance to be a major factor contributing to the high prevalence of obesity and diabetes in the Latinx community of Central Falls and Pawtucket in Rhode Island.[2-3]**
- **Progreso Latino, an organization that seeks to eliminate Latinx health disparities, identified the need for a culturally appropriate, language concordant healthy cookbook.**

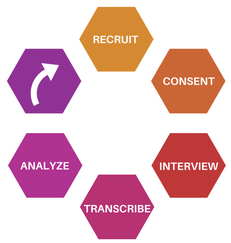
AIMS

- **TO UNDERSTAND FACILITATORS AND BARRIERS TO COOKING AND EATING NUTRITIOUS FOOD.**
- **TO IDENTIFY POPULAR RECIPES THAT ARE OFTEN SEEN AS POTENTIAL BARRIERS TO EATING HEALTHFULLY.**
- **TO DEVELOP A CULTURALLY APPROPRIATE, LATINX-SPECIFIC COOKBOOK.**

METHODOLOGY

INTERVIEWS

- We conducted 20 in- depth, semi-structured interviews by telephone with Progreso Latino members.
- Using immersion-crystallization techniques and NVivo software, we iteratively analyzed the transcripts for facilitators and barriers to eating healthfully.[4]



Qualitative Methodology

Image Design inspired by: https://designthinkinginformsuems.net/2016/05/03/managing-up-design-thinking/

COOKBOOK

- We compiled 14 original recipes from interview participants.
- Recipe adaptations followed a recipe modification framework created with assistance from a local culinary nutrition expert following the principles of health, accessibility, cost, and variety/flexibility.



Harvard Healthy Eating Plate

https://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/

Table 1. Interviewee Demographics

Characteristic		Mean (SD, range) or N (%)
Age, mean, years		56 (16, 20-81)
Female sex		15 (75)
Race/ Ethnicity	Hispanic/Latinx/Spanish	20 (100)
Place of Origin	Colombia	7 (35)
	Dominican Republic	7 (35)
	Puerto Rico	3 (15)
	Guatemala	1 (5)
	Ecuador	1 (5)
	Honduras	1 (5)
Community in RI	Pawtucket	6 (30)
	Central Falls	6 (30)
	Cumberland	3 (15)
	Providence	4 (20)
	Cranston	1 (5)
Language	Spanish	16 (80)
	English	4 (20)

Figure 1. Facilitators and Barriers to Healthy Eating



RESULTS

Table 2. Themes and Illustrative Quotes

Topic	**Themes** *Illustrative Quotes*
Accessibility	**Healthy foods are readily available.** *"There are many vegetables here. Here the supermarkets always have vegetables especially, it is not difficult to find them."*
Cost	**Cost makes fresh, healthy food and nutrition services inaccessible.** *"What happens is that they [healthy foods] are also more expensive, it is the only obstacle, that it is more expensive, all that is more expensive."*
Culture/Tradition	**Cultural background and family traditions determine what families cook and eat every day.** *"I learned to cook in my country, I cook the same as there, as in my country, with everything in my country."*
Food Programs	**Nutrition program satisfaction was attributed to increased knowledge and food pantry referrals.** *"They taught me how to measure food, what a diabetic could eat and what he couldn't eat, they taught me a lot. Those classes are very good. "*
Physician's Role	**Physicians need to help inform food decisions, through nutrition program referrals and/or explicit directions and recommendations.** *"I think they do tell me you have to eat healthier, but to our understanding we are eating healthy, because that's what our grandmother gave us, that's what, and that's what keeps you strong."*
Mental Health	**Mental health impacts of obesity and chronic diseases include loss of self esteem and motivation, anxiety, depression.** *"I thought I was fine. I really wasn't. Especially like emotionally, like emotionally, like I had a breakdown, one time. I had no idea where that came from."*

Figure 2. Sample Cookbook Pages





CONCLUSIONS

- **According to participants, the main barriers to healthy eating are cost, time, cooking for a family, and oversaturation of processed food.**
- **The main facilitators included availability of healthy food, nutrition education programs, a family tradition of cooking, and fear of chronic diseases.**
- **These findings were used to help modify recipes provided by participants and create an educational cookbook tailored to the community.**

RECOMMENDATIONS

- **Strengthen nutrition program referrals or integrate nutrition services into clinical settings.**
- **Increase education for physicians on the importance of nutrition among the communities they serve.**
- **Promote physician advocacy to improve affordability of healthy foods.**

FUTURE DIRECTIONS

- **Complete the cookbook and create instructional educational videos to accompany the cookbook.**
- **Disseminate cookbook in primary care settings and measure changes in cooking self-efficacy and diet.**

REFERENCES

1. Hales CM, Carroll MD, Fryar CD, Ogden CL. Prevalence of Obesity Among Adults and Youth: United States, 2015-2016. NCHS Data Brief. 2017;288:1–8.
2. Memorial Hospital of Rhode Island 2016 Community Health Needs Assessment. http://www.carenewengland.org/about/upload/memorial-hospital-final-2016.pdf
3. Community Health Assessment Data, State of Rhode Island Department of Health. https://health.ri.gov/data/communityhealthassessments/
4. Borkan J. Immersion/Crystallization. Thousand Oaks: Sage; 1999.

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