

Brief Report

Feasibility of collaborating with independent Latino-owned restaurants to increase sales of a healthy combo meal

Lisa Poirier,¹ Lucia Flores,² Ivonne Rivera,² Christine St. Pierre,³ Julia A. Wolfson,^{1,4} Melissa Fuster,⁵ Joel Gittelsohn,¹ Uriyoán Colón-Ramos⁶

¹Department of International Health, Johns Hopkins Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD; ²Independent Consultants, Washington, DC; ³Department of Exercise and Nutrition Sciences, Milken Institute School of Public Health, George Washington University, Washington, DC; ⁴Department of Health Policy and Management, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD; ⁵Department of Social, Behavioral, and Population Sciences, School of Public Health and Tropical Medicine, Tulane University, New Orleans, LA; ⁶Department of Global Health, Milken Institute School of Public Health, George Washington University, Washington, DC, USA

Abstract

Americans spend the majority of their food dollars at restaurants and other prepared food sources, including quick-service and fast-food restaurants (PFS); independent small restaurants make up 66% of all PFS in the US. In this feasibility study, 5 independent and Latino-owned PFS in the Washington DC metro area worked with academic partners to start offering healthy combo meals with bottled water and promote these using on-site, community, and social media advertising. The number of healthy combos sold was collected weekly, showing that the new combos sold, and customers in all 5 sites were surveyed as they exited the PFS (n=50): >85% had noticed the combo meals; 100% thought it was a good idea to offer it, 68% had ordered the combo (of these, >94% of customers responded that they liked it). Results suggest that it is feasible to work with independent Latino-owned restaurants to promote healthy combos and collect data.

Introduction

Foods consumed at restaurants are an important contributor to American's daily calories.¹ Americans typically spend 50% of their food dollars in restaurants, and small, independent-owned restaurants make up 66% of all restaurants in the US.² Few interventions have partnered with independent, ethnic restaurants, which tend to attract customers that belong to communities that are hard to reach and more vulnerable to diet-related health disparities.³ This study sought to determine the feasibility (operability, acceptability) of working with independent Latino-owned restaurants and prepared food sources (PFS) (quick-service, fast food restaurants) to offer healthy combo meals in the Washington DC metro area.

Design and methods

The study emerged from a community participatory research study (Water Up!) in a predominantly Latino community of the Washington D.C. metropolitan area.⁴ Twenty-eight, independently-owned restaurants within a one-mile radius of the targeted community were identified and approached by a community organizer to recruit them for an intervention to sell and promote an existing 'healthy' meal on their menu along with a bottle of water. No combos (meal plus drink at a discount) were offered prior. Five PFS agreed to participate. The existing meal had to include: green vegetable salad or cut-up fruit, or ≤1 cup of white rice with beans (not refried) and a lean protein (chicken or fish grilled/steamed or sautéed in vegetable oil). The combination of these foods with a bottle of water was promoted as a 'Water Up! Combo' via radio and TV interviews with owners, ads in local newspaper, social media, tent cards, menu flyers, and posters at the PFS. Combo prices were set by the owners to be ≤ the price of the meal alone (i.e., \$4-6 for fruits/salad plus water; \$8-\$14 for chicken/fish, rice and beans, salad plus water).

Operability was assessed via number of combo units sold/week (obtained from electronic sales in 3 PFS, and from paper receipts in 2 PFS) collected weekly by a trained research assistant from the community between July-October 2017. Unit sales of other beverages was also collected given the community's interest in sugary drinks consumption.⁴

Acceptability was assessed via exit interviews conducted with customers during weeks 10-11 in each PFS (n=10/PFS) to learn about combo knowledge and opinion and frequency of eating out. Data collection protocols were approved by the institutions' IRB #070517.

Data were entered into Stata 16 (Stata Statistical Software: Release 16. College Station, TX: StataCorp LLC, 2019) for descriptive statistical analysis and linear-by-linear non-parametric test for trend on number of units sold.

Significance for public health

Consuming foods away from home once a week or more has been associated with risk for obesity, and targeting independent, ethnic restaurants (full service and fast casual) with health interventions can attract segments of populations that are more vulnerable to health disparities and are typically hard to reach. There is need to determine potential dietary health impacts on consumers, the potential for profitability at the restaurant level, and if these types of restaurant interventions can be a sustainable, all of which would likely improve community health. This report adds that it is feasible, based on operability, acceptability, and perceived sustainability, to work with independent-owned restaurants to promote healthier food and beverage alternatives.

Results

Complete unit sales data were collected for 14 consecutive weeks in 4 PFS. For one PFS, data for weeks 4 and 6 was missing because the owner was traveling.

Figure 1 shows the gradual, but not statistically significant ($p>0.05$) increase in the number of units sold across PFS for Water Up! Combos and for different beverages. On average, the 5 PFS sold 492 Water Up! Combos/week, with a minimum of 307 the first week, peaking at 627 in week 8, and then ending with 593 units sold in week 14. ‘Other’ beverages was the category that most units sold during the data collection period. This is a category that includes culturally-relevant beverages were prepared in the PFS by adding a flavored powder to sugar and water (e.g., *horchata*, *tamarindo*).

Of the 50 exit surveys with customers (Table 1), the majority (91%) reported eating out of their home > once/week; with almost 40% visiting this particular restaurant at least once/week. The majority (76%) never asked specifically for tap water when eating at the specific PFS, but did order bottled water separately (66%). Homemade or PFS-made sugary drinks that are culturally-relevant, such as *horchata* and *tamarindo* were the most commonly reported beverages ordered. Over 85% of customers report knowing about the Water Up! Combo offered at the PFS; 100% of participants reported thinking that it was a good idea to offer it, and the majority thought that the price was fair; 68% reported having ordered the Water Up! Combo and of those who had ordered it, >94% liked it. Of the customers who had not ordered it, a quarter reported that they worried they wouldn’t like the taste.

Conclusions

This is the first feasibility study of an intervention trial with independent, Latino-owned restaurants to offer a healthy combo

Table 1. Sociodemographic and customer intercept survey results (n=50).

Variables	n (%)
Age, Years	
18-30	19 (38.0)
1-40	23 (46.0)
41+	8 (16.0)
Gender	
Female, %	25 (52.1)
Male, %	23 (47.9)
Latino heritage	
Guatemala	8 (16.0)
El Salvador	26 (52.0)
Mexico	5 (10.0)
Honduras	8 (16.0)
Colombia	3 (6.0)
General restaurant information	
In a typical week, how many meals do you eat outside of home?	
None/Rarely	6 (12.0)
1-2 times per week	21 (42.0)
3-4 times per week	16 (32.0)
1 time per day	5 (10.4)
2+ times per day	2 (4.1)
How often do you visit this restaurant?	
Once every 2-3 months/rarely	15 (31.3)
Twice a month or less	14 (29.2)
1-2 times per week	17 (35.4)
3-4 times per week	2 (4.2)
Which beverage(s) do you typically order when you eat at this restaurant?	
Soda	10 (21.7)
Drinks with fruit flavor (tamarindo, horchata)	16 (34.8)
100% fruit juice	4 (8.7)
Alcohol	9 (19.6)
Coffee, tea	5 (10.9)
Water (tap)	1 (2.2)
Bottled water	19.6

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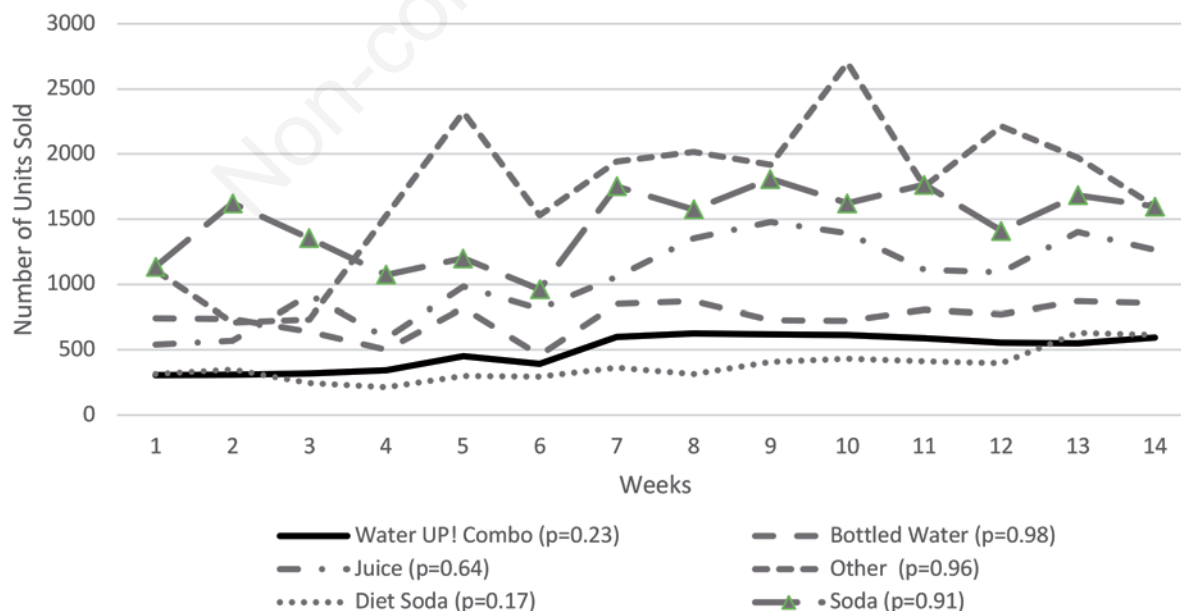


Figure 1. Total number of units sold over 14 weeks in five Latino-owned prepared food sources in Washington DC Metro area, July-October 2017 (non-parametric test for trend). Weeks 4 and 6 do not include the unit sales of one prepared food source. Other category includes: homemade sugary drinks such as *tamarindo*, *horchata*.

Table 1. Continued from previous page.

Do you typically order water when you eat out at this restaurant	
Yes	33 (66.0)
Have you ever asked specifically for tap water at this restaurant?	
Yes	12 (24.0)
Water Up! Combo questions	
Have you seen the Water Up! Combos at this restaurant?	
Yes	42 (85.7)
Do you believe that having a combo meal with water in this restaurant is a good idea?	
Yes	48(100.0)
Would you order this in the future?	
Yes	49 (98.0)
Do you think that the price is fair?	
Yes	48 (96.0)
Would you encourage your friends or family to order it?	
Yes	49 (98.0)
Would you be interested in ordering lean protein and fresh vegetables and water combos like this at other restaurants?	
Yes	49 (98.0)
Would you be interested in knowing the caloric content of this food and other foods at restaurants where you typically go?	
Yes	49 (98.0)
If you ordered the Water Up! Combo, did you like it? (n=34)	
Yes	32 (94.1)
If you have seen the Water Up! Combo, but not ordered it, why not? (n=10)	
Don't think I will like the taste	1 (10.0)
Too expensive for me	0 (0.0)
I have not tried it yet, but might in the future	9 (90.0)

(meal plus bottled water). The trial was operational (it was feasible to collect data and the Water Up! Combos sold) and acceptable to customers.

A key message of this work with independently-owned PFS is active community engagement with restaurateurs. Although only 18% of the PFS initially approached were willing to participate, these owners granted access to unit sales data, placed promotional materials in their PFS, provided their time for interviews and other advertisements. We believe this was due to their relationship with the academic unit as part of the CBPR process: PFS owners were approached by a community organizer; data were collected by a research assistant who was also from the community and who had established a relationship with the restaurateurs. The academic partners worked with individual restaurateurs to identify existing menu items. The interruption in data collection for one PFS due one of the owners traveling showcases the fragility of these PFS and underscores the need for personal engagement with restaurateurs.

Finally, while response bias should be considered, the intercept survey results for eating out agrees with national data that reported Americans eat 3.9 meals away from home per week.⁵ The consistent number of meals away from home over >10 years suggests the current and likely future need for offering healthier meals at these types of PFS. Although the number of units of the combos seem small in comparison to other beverages, these combos sold at a \$5.00-\$14.00 price range, contributing more to total revenue and potential profitability.

In sum, the feasibility of the current trial bodes well and supports the idea of future, larger, interventions investigating health effects on consumers.

Correspondence: Uriyoán Colón-Ramos ScD MPA, Department of Global Health, Milken Institute School of Public Health, George Washington University, 950 New Hampshire Avenue, Washington, DC 20052, USA.

Tel. +1.202.994-1899.

E-mail: uriyoan@gwu.edu

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Ethics approval and consent to participate: All data collection, analysis and dissemination protocols were reviewed and approved by the academic partners' office for Human Research (George Washington University protocol #s 101648; 051503; 011517).

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