Abstract #995

Variation in Weight Loss and Intervention Engagement in the Breast Cancer Weight Loss (BWEL) Trial by Language and Ethnicity (Alliance)

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BACKGROUND

- Obesity is associated with poor outcomes in women with early-stage breast cancer (BC)
- Obesity is prevalent in Hispanic patients (pts) with breast cancer (BC), but this population is often underrepresented in studies of weight loss interventions (WLIs)
- **Breast Cancer Weight Loss** (BWEL) is a phase III randomized trial testing impact of a telephone-based WLI on invasive disease-free survival in women with HER2-negative BC and a BMI of ≥ 27 kg/m^2
- At 12 months (mo), Hispanic pts lost less weight than White pts on the WLI

METHODS

Figure 1. Key Eligibility Criteria

- Stage II-Stage II-III BC
- HR+/HER2- or TNBC
- Diagnosed w/in past 16 mo.
- Completed surgery +/- chemotherapy +/- radiation
- BMI ≥ 27 kg/m^2

Figure 2. WLI Description

GOALS

Weight: 0.5-1.0 kg/week

Calories: 1200-1500 kcal/day for participants ≤113.6 kg

1500–1800 kcal/day for participants >113.6 kg

Exercise: 150-225 min/week of moderate-intensity activity

DELIVERY

Format: Telephone

Number of sessions: 42 sessions over 2 years

Session Frequency: Weekly for 12 weeks Biweekly for the rest of Year 1 Monthly for Year 2

Coaching: Trained health coaches

Language: Bilingual coaches English or Spanish

TOOLS

Meals: Sample meal plans, Meal replacement shakes, Food scale

Weight Tracker: Wireless scale

Activity Tracker: Use of FitBit

Other materials: Coaching portal, recipes, participant workbook

- Participants self-reported ethnicity and their preferred language
- Participants were randomized 1:1 to either **Health Education Alone** or **Health Education + 2-year Telephone-based WLI**
- **12-month outcomes of interest:** Percent weight change, attrition, number of calls (mean), call duration (mean) number of shake shipments, FitBit use (days), weight tracking (days)
- **Inclusion criteria:** available 12-month weight data and ≥ 1 one phone call lasting > 5 min
- **Analysis:** Results compared by language preference between Spanish-preferred Hispanic pts (SH), English-preferred Hispanic (EH) pts and non-Hispanic (NH) pts using ANOVA

CONCLUSIONS

In this phase III WLI trial, engagement with the WLI appeared lower in SH pts, despite provision of the intervention in Spanish. More work is needed to improve accessibility and efficacy of WLI studies among non-English speaking populations.

RESULTS

Table 1. WLI patient characteristics by language and ethnicity

Patient Characteristics	Non-Hispanic (NH) pts N=1103	English-preferred Hispanic (EH) pts N=57	Spanish-preferred Hispanic (SH) pts N=30*	P-value
Age Mean (SD)	53.9 (10.4)	51.1 (11.7)	49.5 (8.5)	0.006
Postmenopausal (%)	57.7	45.6	33.3	0.007
BMI (kg/m2) Mean (SD)	34.5 (5.5)	35.1 (12.0)	32.2 (4.9)	0.022
Household Income (%) < $50,000	26.6	47.8	56.5	0.0003
Never smoker (%)	63.9	70.2	93.3	0.035
Education (%) Less than college graduate	37.1	55.4	76.7	<0.0001
HR positive (%)	81.5	75.6	63.3	0.026
Partial mastectomy (%)	54.0	57.9	53.3	0.92
Chemotherapy (%)	80.7	87.7	96.7	0.039
Endocrine therapy (%)	93.7	97.7	100.0	0.48
Radiation (%)	89.8	91.2	83.3	0.48

*includes one patient who self-classified as non-Hispanic but selected Spanish as their language preference

Figure 1. Percent Withdrew from Intervention at 12-months

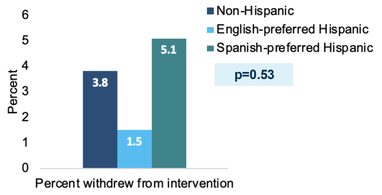


Figure 2. 12-month Number of Calls

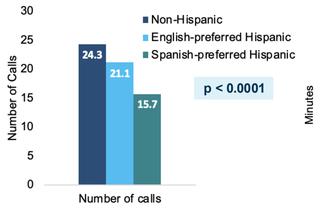


Figure 3. 12-month Mean Call Duration

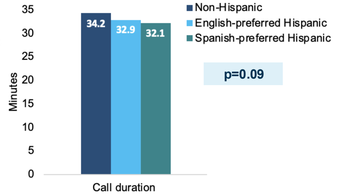


Figure 4. 12-month Tool Utilization by Patient Subgroups

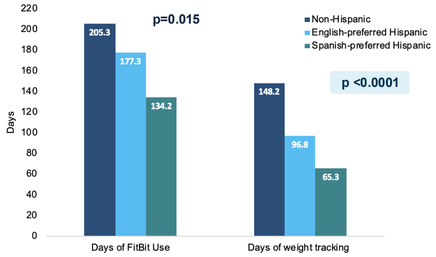


Figure 5. 12-month Dietary Supplementation

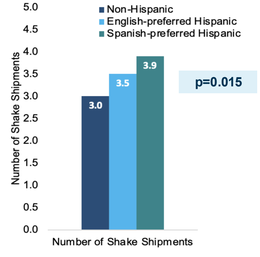
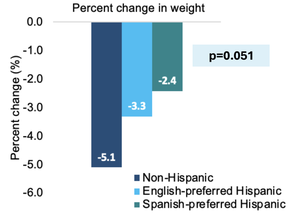


Figure 6. 12-month Percent Change in Weight



STRENGTHS & LIMITATIONS

Strengths: multiple measurements to assess engagement

Limitations: Data were not collected for all elements of the WLI (e.g., dietary plans), Missing data (e.g., weight data)

FUTURE DIRECTIONS

Future work is needed to to improve accessibility and efficacy of WLI studies among non-English speaking populations.

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