

HT Helper: A Culturally Tailored Mobile Health and Patient Navigation Intervention to Address Barriers to Hormone Therapy Adherence among Latina Breast Cancer Survivors

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INTRODUCTION

Hormone therapy (HT) is the current standard of care for hormone receptor-positive breast cancer and substantially reduces recurrence and breast cancer mortality.^{1,2,3} Nevertheless, long-term adherence remains challenging, particularly among medically underserved populations. Latina breast cancer survivors frequently experience Non-Medical Drivers of Health (NMDoH), including financial hardship, limited health literacy, language barriers, and restricted access to healthcare resources, all of which may interfere with adherence to hormone therapy. Innovative, culturally responsive strategies are needed to address these barriers and improve survivorship care.^{4,5}



STUDY AIMS

Aim 1: Conduct a parallel 3-group randomized controlled trial to assess the effectiveness of *HT Helper* App + PN (Group 1) vs. PN alone (Group 2) vs. usual care (Group 3) on HT adherence among Latina patients.

Aim 2: Assess the effect of the *HT Helper* App + PN (Group 1) vs. PN alone (Group 2) vs. usual care (Group 3) on patients' self-efficacy to identify side effects, use self-care skills to manage side effects, and communicate with the medical team.

METHODS

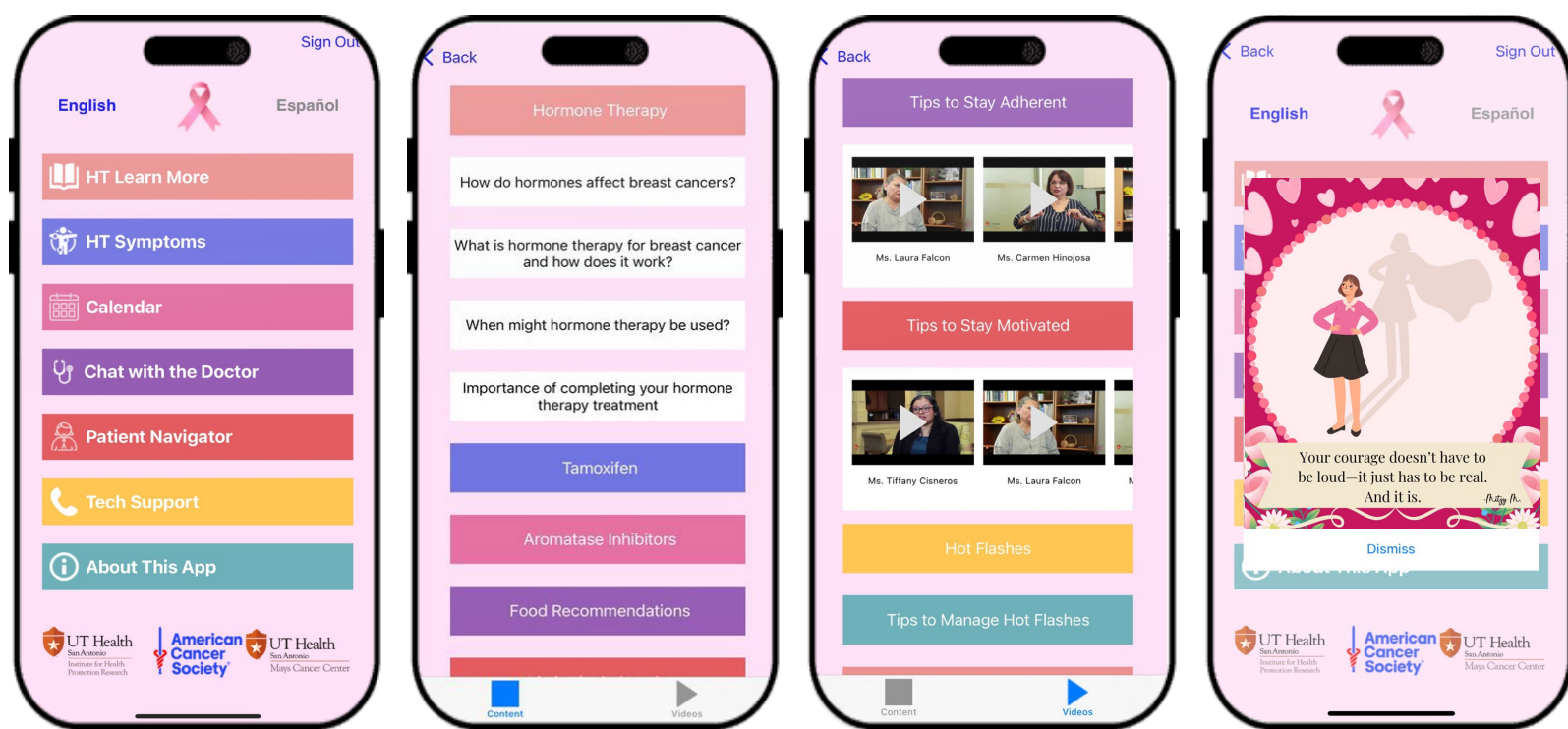
HT Helper is an ongoing three-arm randomized controlled trial evaluating a bilingual, culturally tailored intervention that combines a mobile health application with Patient Navigation (PN). Participants are randomized to one of three groups: HT Helper plus PN, PN alone, or usual care. The intervention was informed by prior pilot research demonstrating high acceptability among Latina breast cancer patients and incorporates educational content and videos, symptom self-monitoring, medication reminders, direct communication with a patient navigator, and interactive virtual Chat with the Doctor sessions. Latina patients receiving hormone therapy at the Mays Cancer Center Breast Clinic are screened for NMDoH using a standardized assessment before enrollment. Medication adherence (oral therapy or injections) and patient-reported outcomes are collected at baseline and at 3-, 6-, 12-, and 18-month follow-up visits.

METHODS (cont.)

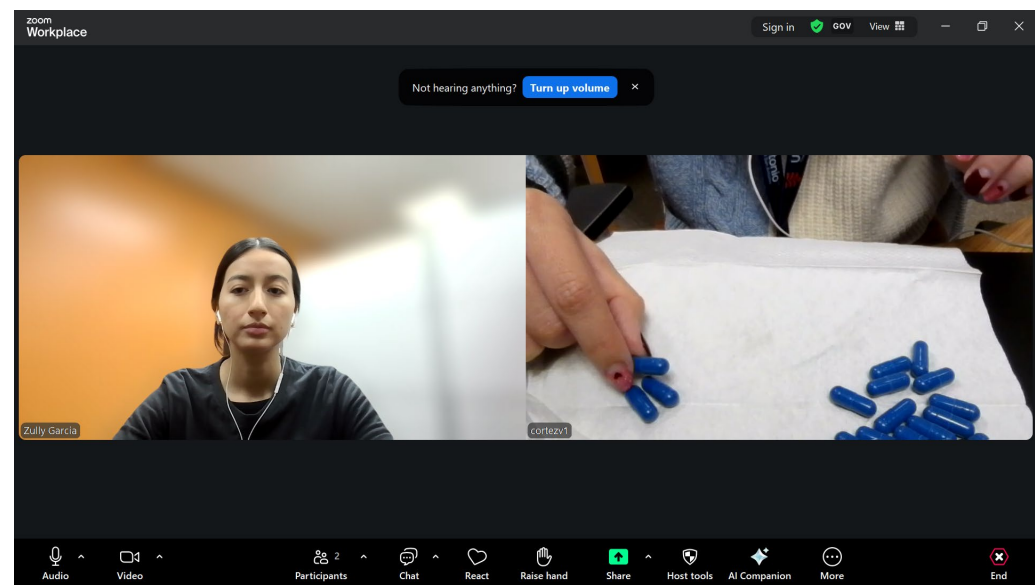
Random Assignment of eligible breast cancer patients (R):

(R) HT Helper + patient navigation	O1	X1	O2	O3	O4	O5
(R) Patient navigation alone	O1	X2	O2	O3	O4	O5
(R) Usual care	O1	X3	O2	O3	O4	O5
X1= HT Helper + patient navigation	O1= Pre-intervention survey					
X2= Patient navigation alone	O2= 3-mo follow-up O3= 6-mo follow-up					
X3= Usual care	O4= 12-mo follow-up O5= 18-mo follow-up					

Inclusion Criteria. English/Spanish-speaking Latina patients aged 18 and older who: a) are diagnosed with hormone receptor-positive breast cancer and prescribed HT; b) within 1 to 24 months of starting HT; c) are experiencing any NMDoH (based off screener); d) own a smartphone, are able to send and receive text messages and access the internet; and e) are able to provide informed consent to participate in the study.



Screenshots of the updated version of the *HT Helper* app



Zoom Visit – Pill Count



Recruitment Flyer and Study Banner

RESULTS (cont.)

Since study initiation, 79 participants have enrolled: 26 to the HT Helper + Patient Navigation group, 27 to the Patient Navigation only group, and 26 to Usual Care. Participants have a mean age of 54 years (SD = 11.4); 91% identify as White, 45% are married, 60% were born in the United States, and 42% have a high school education or less. About half report annual household income below \$40,000 (49%), and 57% receive Medicare, Medicaid, or CareLink coverage.

Patient Characteristics	Overall	HT Helper + PN	PN Only	Usual Care
N	79	26	27	26
Age Mean (SD)	53.5 (11.4)	54.9 (10.6)	52.5 (12.8)	52.9 (11.1)
Race				
White	68 (90.7%)	23 (92.0%)	22 (91.7%)	23 (88.5%)
Born in the US	45 (60.0%)	15 (60.0%)	16 (66.7%)	14 (53.8%)
Marital Status				
Married	34 (45.3%)	11 (44.0%)	11 (45.8%)	12 (46.2%)
Education				
High school or less	33 (41.8%)	11 (42.3%)	8 (29.6%)	14 (53.8%)
Income				
Below \$40,000	39 (49.4%)	13 (50.0%)	11 (40.7%)	15 (57.7%)
Health Insurance				
Medicare/Medicaid	45 (57.0%)	17 (65.4%)	9 (33.3%)	19 (73.1%)

NMDoH screening demonstrates a substantial burden of social needs, including financial hardship (67%), food insecurity (47%), limited health literacy (47%), stress (53%), limited English proficiency (33%), housing instability (27%), and transportation barriers (19%).

NMDoH Domain	Overall	HT Helper + PN	PN Only	Usual Care
Financial hardship	53 (67.1%)	20 (76.9%)	14 (51.9%)	19 (73.1%)
Food insecurity	37 (46.8%)	14 (53.8%)	10 (37.0%)	13 (50.0%)
Limited health literacy	37 (46.8%)	11 (42.3%)	13 (48.1%)	13 (50.0%)
High stress	42 (53.2%)	17 (65.4%)	12 (44.4%)	13 (50.0%)
Limited English proficiency	26 (32.9%)	9 (34.6%)	7 (25.9%)	10 (38.5%)
Housing instability	21 (26.6%)	10 (38.5%)	4 (14.8%)	7 (26.9%)
Transportation barriers	15 (19.0%)	5 (19.2%)	3 (11.1%)	7 (26.9%)

RESULTS (cont.)

Description of baseline symptom burden is presented below, with General aches and pains, Hot flashes, Joint pains, Lack of energy, and Muscle stiffness being the most commonly reported symptoms among participants.

Symptom	HT Helper + PN	PN Only	Usual Care
General aches and pains	91.3% (n=23)	66.7% (n=24)	84.6% (n=26)
Hot flashes	82.6% (n=23)	79.2% (n=24)	84.6% (n=26)
Joint pains	91.3% (n=23)	79.2% (n=24)	100% (n=26)
Lack of energy	87% (n=23)	70.8% (n=24)	92.3% (n=26)
Muscle stiffness	87% (n=23)	66.7% (n=24)	88.5% (n=26)

CONCLUSION

HT Helper was developed to address modifiable barriers that contribute to hormone therapy non-adherence among Latina breast cancer survivors. By integrating culturally tailored digital health support with patient navigation, this study will provide evidence on whether a multicomponent survivorship intervention can improve adherence and address NMDoH-related barriers. If successful, the intervention could serve as a scalable model for improving long-term adherence to oral anticancer therapies in underserved populations.

ACKNOWLEDGEMENTS

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