Empowering Latina Breast Cancer Patients: A Phone App + Patient Navigation to Improve Hormone Therapy Adherence

Patricia Chalela, DrPH,[1] Vivian Cortez, MS,[1] Sandra Sivak, MS,[1] Armida Flores, BA,[1] Zully Garcia, BS,[1] Mauren Duran, BS,[1] Shayannie Sierra, BS,[1] Maria Sung-Cuadrado,[1] Ashley Trejo,[1] Sachit Bassor,[1] Danyella Mora-Espinoza,[1] Byeong Choi, PhD,[1]
Edgar Muñoz, MS,[1] Cliff Despres, BJ,[1] Alyssa Gonzales, BA,[1] Virginia Kaklamani, MD,[2] Kate Lathrop, MD,[2] Marcela Mazo Canola, MD,[2] Devasena Inupakutika, PhD,[3] David Akopian, PhD,[3] Amelie G. Ramirez, DrPH[1]
[1]Institute for Health Promotion Research, UT Health SA; [2]Mays Cancer Center, UT Health SA; [3]University of Texas at San Antonio

INTRODUCTION

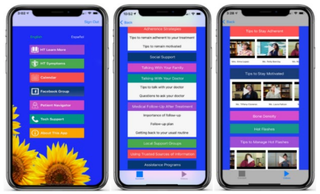
Hormone therapy (HT) is highly effective for nearly all breast cancer patients with hormone receptor-positive tumors, which represent about 83% of all breast cancer diagnoses.[1,2,3] Long-term adherence to HT reduces recurrence rates and cuts the risk of breast cancer mortality nearly in half during the second decade after diagnosis. Despite the proven benefits, 33% of women who are prescribed HT do not take it as prescribed by their doctor (<80% take their daily dosage). Latina patients are particularly affected by Non-Medical Drivers of Health (NMDoH) that keep them from adhering to HT and are at higher risk of breast cancer recurrence and mortality.[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.

The study builds on a prior pilot project that explored the feasibility and acceptability of the *HT Helper* app. We present results from formative research activities, including betatesting, focus groups, and the final refinement of the bilingual, culturally tailored *HT Helper* app.



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

FORMATIVE RESEARCH

Betatesting and Focus Groups

We conducted betatesting of the *HT Helper* app with 12 Latina breast cancer patients experiencing non-medical drivers of health (NMDoH) barriers (6 English- and 6 Spanish-speaking). The mean age was 49.6 years; 41.2% had CareLink insurance, and 49.7% had a high school education or less.

Participants tested the app content, educational videos, overall features, and the User Guide for one week. Two focus groups (one in English and one in Spanish, each with six participants) were then held. Their feedback and recommendations informed key refinements to the *HT Helper* app.

General Recommendations

Patients suggested redesigning the app homepage (colors, graphics) and adding new educational content and videos to better reflect their needs and preferences. They emphasized the importance of making the app more visually appealing, credible, and representative of breast cancer awareness.

They also liked the proposed "Chat with a Doctor" feature, enabling patients to ask questions, learn about specific topics, and interact directly with a Breast Clinic physician and other study participants in a supportive environment.

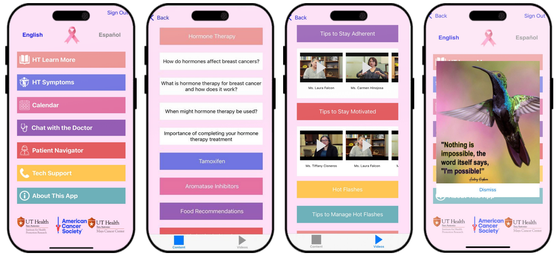
Participants liked the culturally tailored, bilingual educational content and videos and found them engaging. Betatesters later reviewed how their recommendations were incorporated into the revised app, reinforcing their sense of ownership and trust in the tool.

FORMATIVE RESEARCH

App Design and Appeal

Focus group members evaluated multiple homepage mock-ups and provided detailed feedback on the visual design. While they appreciated the original blue background with sunflowers for its calming appearance, they felt it did not accurately represent breast cancer awareness.

Participants consistently preferred pink-themed designs and recommended prominently featuring a breast cancer ribbon on both the app icon and homepage to increase relevance and recognition. They also emphasized the importance of credibility, suggesting the inclusion of institutional logos (UT Health San Antonio and the American Cancer Society) to convey professionalism, trustworthiness, and formal endorsement of the app.



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

App Content

Participant feedback also guided changes to app content. The underutilized Facebook Group feature was removed and replaced with a new "Chat with a Doctor" function, designed to be more interactive and helpful.

This feature offers bi-monthly Zoom sessions led by Breast Clinic oncologists, where patients can learn about topics they select, ask personalized questions, and share experiences in a supportive, peer-to-peer setting. Participants highlighted that this format would and provide direct access to reliable medical information.

Additionally, new content and videos on Sleeping Problems were incorporated, addressing a commonly reported issue among breast cancer patients. This addition ensured the app provided more comprehensive, practical support for patients' day-to-day challenges.

CONCLUSION

An iterative, patient-centered development process was employed to ensure that the voices of the patients were integral to the refinement of the app, making it more engaging and user-friendly for the current study. This innovative, multi-level intervention is designed to improve breast cancer outcomes, including reducing recurrence, enhancing quality of life, and improving overall survival and life expectancy among underserved Latina patients. The anticipated outcome is a scalable, evidence-based intervention that is easy to disseminate and has broad applicability for patients using oral anticancer medications.

EXPECTED OUTCOMES

This multi-level intervention involving a unique combination of mHealth technology + PN has the potential to improve adherence to HT by addressing NMDoH and promote equitable breast cancer outcomes, including reduced recurrence and improved quality of life, overall survival and life expectancy among underserved Latina patients. The anticipated outcome is a scalable, evidence-based, and easily disseminated intervention with potentially broad use to patients using oral anticancer medications.

ACKNOWLEDGEMENTS

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