With Love, Grandma

New app for cancer survivors and families to promote a legacy of health

Sara Mijares St. George, Ph.D.

Many Hispanic-American survivors of breast, endometrial or ovarian cancers will soon have a tool for potentially lowering their offsprings’ risks of cancer by raising the “health value” of their families’ choices. Sara Mijares St. George, Ph.D., assistant professor in the Department of Public Health Sciences at the Miller School of Medicine, is leading the development of an app, called “Con Cariño, Abuelita” (With Love, Grandma) to address cancer risks at their roots.

“After smoking, obesity is the second leading modifiable risk factor for cancer,” she said. “For patients with cancer, obesity also hampers their chances of recovery.” She and her team hope that by incorporating family-based approaches into
survivorship care plans, cancer survivors and their progeny will benefit. She believes there is a particularly teachable moment when a woman emerges as a cancer survivor, and wants to capitalize on this opportunity through physician referral to her program.

“Con Cariño, Abuelita” is designed for cancer survivors who are grandmothers and their adult daughters. It not only addresses the most directly influential behaviors like healthy meals/cooking and physical activity, but also engages family in culturally-relevant stories, virtual “tours” to home countries, positive parenting skills, family discussion activities, and even a time capsule feature that records survivors’ wisdom on the value of a healthy lifestyle as well as how they overcame obstacles in life.

“I wanted this to be something that connected them at many levels, so that it became the venue for ongoing discussion, melding healthy eating and exercise into the larger context of family relationships,” Dr. St. George said.

Supported through a V Foundation for Cancer Research grant, she and her team are on the cusp of piloting the app to measure how well it is adopted, before formally testing its efficacy in a large-scale randomized controlled trial.

Program Interventions
Dr. St. George has completed the foundational phases of the formal study, which was published in Psycho-Oncology in 2020. Qualitative data were collapsed into seven intervention considerations, such as tapping into survivors’ internal strengths and motivating families through reinforcing
activities, which formed the basis for the app’s development.

Targets for the intervention include things like healthy weight, engaging in regular physical activity and achieving a dietary pattern high in vegetables, fruits, and whole grains (2.5 cups/day of vegetables and fruits).

“My team has completed the formative work that informs intervention content and are now in the process of working with our software partners to develop a fully functioning prototype,” she said. “We are now asking our moms and grandmas to just interact with the programs to give us feedback on functionality, “she said. “Then, in the next month or so, we will solicit feedback from a handful of survivor-daughter dyads on the prototype, prior to our pilot study in 2022.

App Magic
Dr. St. George and her team earned their app chops by developing another app – “Healthy Juntos” (Healthy Together) – with funding from the National Heart, Lung, and Blood Institute. “Healthy Juntos” aims to improve lifestyle behaviors and prevent obesity among Hispanic adolescents 12 to 15, and their parents.

Creating the “magic” that makes an app friendly and appealing is the most fun element for St. George and her team. The app itself was designed to be visually inviting and relevant. The landing page is in three colors – pink, peach and teal, inspired by the colors of the ribbons associated with each of the three cancers.

“My team is really the ‘magic’ behind the app’s development,” she said. “I am fortunate to work with bright and creative trainees and students who have helped with everything from designing icons to making animated videos and recording audio clips. Plus, I can’t say enough about our tech partners and the medical oncologists who believe in the value this program can bring to their patients.”

Key Elements
Home page prototype for the app "Con Cariño, Abuelita"

Each mother-daughter dyad is given a Fitbit device so they can see not only their own steps, but their family members’ steps, as well, and send each other encouraging messages. Healthy lifestyle topics are explored through short animated videos on the app, with new ones posted each week. “It’s a dynamic app – we want to make sure it stays fresh,” Dr. St. George said.

It also includes recipes for families to make, either together or in tandem from their separate homes. Participants record the meals they consume and rate them as healthy, so-so, or unhealthy.

“We reached out to the American Cancer Society, and will be selecting up to 50 recipes from their cookbooks for our app,” she said. To produce the accompanying photos, on their off-
hours she and her team are taking turns preparing and then photographing the completed meals.

She feels the app would be hollow without ways of bonding on a more personal level, so she has included modules on positive parenting skills, presenting a new skill every week.

“It’s like a podcast, where I host a ten-minute show that introduces a skill, speaks to strategies for using it and includes examples,” she said. Participants have an opportunity to discuss this content through family discussion activities.

The app content will also feature a different Latin American country every week with photos staff members or participants have taken to increase the cultural relevance of the program.

Dr. St. George’s favorite component is the time capsule, where survivors and their daughters make permanent recordings of important events and life-affirming wisdom to pass on. This will be presented as a gift to their grandchildren and children at developmentally appropriate points or special occasions later in their lives.

**Family Legacy**

To impact generations of families is to attack cancer at the root, or at least at an early branch. The program addresses a population central to UHealth’s mission and catchment area. It is a population likely to spread a positive impact more widely, since Hispanic-Americans have above-average family sizes and the strong influence family members tend to have on each others’ actions.

Dr. St. George, herself the daughter of Cuban immigrants,
said, “Cultural values tend to have a strong legacy value in Hispanic families, because there is a tendency toward making decisions that are family decisions rather than individual-level decisions. We're trying to tap into that in this program.”

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