Approximately 5 years ago, I first considered adapting memory compensation strategies for older adults (typically taught in-person with hard copy materials) to a mobile application (app) format. The overwhelming response I received when pitching the idea to peers was, “A 75-year-old isn’t going to use a memory app!” And, in some cases, my critics were right. But the most important thing I learned through the development and testing process was that being truly person-centered in planning and implementing a technology-based intervention is critical: if you are not targeting an outcome that is meaningful to your patient, uptake will not happen or will not be sustained, regardless of how impressive your interface.

When it comes to differences in technology use by age, the digital divide is shrinking. In 2000, only 14% of Americans 65 or older were using the internet; 16 years later, 64% of older adults use the internet, 80% own a cell phone, 34% use social media, and these numbers continue to rise (Pew Research Center, 2016). As the integration of technology into our daily lives becomes ubiquitous, much interest has focused on how older adults’ health and well-being can be improved through technological advancements. Yet, the implementation of new technologies among older adults is, indeed, fraught with challenges. Some of these are inherently technical and relatively simple to address (e.g., is the print large enough to read easily? Are the sound options sufficient?). However, the most difficult challenges involve adapting to complex areas of influence, such as socioeconomic status, environment, individual functional ability, and personal preference. A 75-year-old individual who has never used a smartphone is different from a 75-year-old individual who uses FaceTime daily to talk with her grandchildren. And yet, both individuals may value and commit to using a new technology if it will lead to a personally meaningful outcome.

Certainly, nurses strive to achieve person-centered care. However, in the growing area of technology development for older adults, even our interdisciplinary teams (including nurses) often fail to consider the person at the center of the process. That’s not to say the user is neglected. In fact, many models of technology development or adoption include “the individual” as a primary factor of importance, namely individual characteristics that impact interaction with technology. But just because an individual can use a tablet device does not mean he will use it; he will use it if it meets a need not otherwise met (or met well). And therein lies the missing component...
of technology development for older adults: the identification and monitoring of a personally relevant goal that is addressed through technology adapted to meet that individual goal.

My interests lie in person-centered technology for older adults with mild impairments in cognition, with a focus on maximizing everyday functional ability and well-being. Inspired by several in-person, paper-based cognitive rehabilitation programs (Clare et al., 2010; Greenaway, Duncan, & Smith, 2013), our team aimed to develop a mobile technology–based system of memory support to include multiple components built for adaptability to individual goals; furthermore, we included our end users (older adults with memory concerns) from the very beginning: the app development process. The app itself included a calendar system, to-do list, journal, and attention-training program, all built to maximize ease of use for individuals new to touch screen technology. But the core of our program was our focus on the person, specifically: working collaboratively to identify a personally relevant memory goal (i.e., an area of life identified as negatively impacted by memory problems), adapting the app for each individual to address the goal he/she identified as most important, and customizing training and technology support based on each individual’s needs and experience. Examples of person-centered memory goals identified by participants included being able to recall the names of two new members of a morning coffee group and completing morning tasks in order, within a specified time period.

In the end, participants (N = 12) had positive outcomes overall. On a scale of 1 (low) to 10 (high), self-rated ability to perform the activity specified in their memory goal increased from 6.7 to 8.2, on average, and satisfaction with performance on their memory goal increased from 5.8 to 8.8. But the numbers only tell part of the story. As one participant shared:

The fact that I had it and that I had thought it through was a help. It has made me over these weeks more realistic about how much time I need to get ready to go somewhere. And I hope that lasts. I don’t know if it will when I’m not putting it into something, but it has, and that’s been good. It brings my anxiety level down.

This type of feedback begs the question: was the intervention successful because it helped individuals make progress on a personally relevant memory goal or because it alleviated worry/anxiety/a desire to take action in the face of perceived memory decline? That question will have to wait for further investigation by our research team, but I would argue that our focus on the person may be the active ingredient, and we may achieve multiple positive outcomes by addressing goals most meaningful to each individual.

This is an exciting time of technology innovation that shows no signs of slowing. Wearable camera systems for family caregivers of individuals with dementia (Matthews et al., 2016), mobile apps to promote reminiscence (Hamel, Sims, Klassen, Havey, & Gaugler, 2016), and information visualization to improve engagement in the advance directives process (Woollen & Bakken, 2016) are some of the recent examples highlighted in the Journal of Gerontological Nursing. There are so many opportunities for nurses to make a positive impact on the lives of older adults and their families through technology. Our team embraces the following tenets for a person-centered approach to technology for older adults: (a) involve older adults in development and testing; (b) consider individual needs, preferences, and characteristics; (c) focus on outcomes that are personally relevant to each older adult; (d) customize technology for each individual’s identified goal(s); and (e) recognize that technology adoption is a process with a moving target. As nurses and patient advocates, we keep the person/patient at the center of what we do, and this makes us critical partners in advancing gerontological nursing through technology development and implementation.

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The author has disclosed no potential conflicts of interest, financial or otherwise. The author acknowledges research support from the National Hartford Centers of Gerontological Nursing Excellence Claire M. Fagin Fellow Award Program.

doi:10.3928/00989134-20170313-01