Well-designed digital health platforms can improve the quality of life for people with Parkinson’s disease and their caregivers

Research published in the Journal of Nutrition Education and Behavior identified facilitators and barriers to using digital health platforms to inform future digital nutrition services

Philadelphia, August 8, 2023 – There is a need to better deliver information on medical nutrition therapy for patients with Parkinson’s disease (PD). Findings of a new study in the Journal of Nutrition Education and Behavior, published by Elsevier, show digital health serves as an additional health service resource, which increases the healthcare provider’s abilities to collect current visual and objective data, thereby decreasing patient and caregiver burden and medical expenses.

Lead author Dara Lyn LoBuono, PhD, RD, assistant professor in health and exercise science at Rowan University, says, “People with PD are ideal candidates for using digital health platforms because of their decreased mobility, lack of transportation, the need for visual assessment by their health care team, and informal caregivers to be present at health appointments.”

LoBuono conducted the research as a PhD candidate at the University of Rhode Island under the advisement of Ingrid Lofgren, PhD, MPH, RD, professor in the department of nutrition. The study took place in the northeast US during home visits with individuals with PD and their caregivers. Semistructured dyadic interviews with 20 dyads (20 people with Parkinson’s disease and 20 caregivers) were conducted. Researchers used a technology acceptance model and transition theory to inform and guide their development and research. This model provides a basis for understanding external factors influencing end user perceptions, attitudes and intentions to use technology throughout usage.
The research showed that digital health platforms can successfully deliver nutrition services for patients with Parkinson’s disease (PwPD) and their caregivers by personalizing digital services to meet their needs (e.g., disease stage), clearly communicating the benefits of the digital service platforms, training people on how to effectively use the technology (while offering continuous support, when needed), and promoting social interaction with the nutrition expert and members of the PD community while using the digital platform. With the implementation of these findings, digital nutrition service platforms could improve the quality of life for those suffering with PD and their caregivers.

Caption: Health care professionals and patients with Parkinson’s disease utilize digital health platforms for convenient knowledge acquisition (Credit: Chanelle Malambo/stock.adobe.com).

Despite the many benefits of digital health, barriers exist to using these platforms for PwPD. For example, cognitive changes and PD-related tremors can make the software and hardware interface difficult for PwPD.

The authors explain, “Sixteen patients interviewed revealed they did not have access to certain technologies…. [They] did not know how to use some technologies and/or were unsure how they could benefit from technology.”

Additional barriers include difficulties remembering how to operate the devices, concerns around the clarity of information provided, lack of added value, technology being time-consuming, compatibility issues, and privacy concerns.

The authors note, “Overall, findings from this research support developing, piloting, and examining the acceptability and feasibility of a digital health platform to deliver a nutrition service across diverse PD communities that are convenient, include informal caregivers, and minimize participant burden.”
Notes for editors
The article is “The Facilitators and Barriers to Digital Health for Managing Nutrition in People With Parkinson’s Disease and Their Caregivers: A Formative, Qualitative Study,” by Dara Lyn LoBuono, PhD, RD; Kyla S. Shea, MS; Megan Reed, BS; Alison Tovar, PhD, MPH; Skye N. Leedahl, PhD; Furong Xu, PhD; Leslie Mahler, PhD, CCC-SLP; and Ingrid E. Lofgren, PhD, MPH, RD (https://doi.org/10.1016/j.jneb.2023.05.252). It appears in the Journal of Nutrition Education and Behavior, volume 55, issue 8 (August 2023), published by Elsevier.

The article is openly available for 90 days at https://www.jneb.org/article/S1499-4046(23)00373-1/fulltext.

Full text of the article is also available to credentialed journalists upon request; contact Eileen Leahy at +1 732 238 3628 or jnebmedia@elsevier.com to obtain a copy. To schedule an interview with the author(s), please contact Dara Lyn LoBuono, PhD, RD, at lobuono@rowan.edu.

An audio podcast featuring an interview with Dara Lyn LoBuono, PhD, RD, and other information for journalists are available at https://www.jneb.org/content/media. Excerpts from the podcast may be reproduced by the media with permission from Eileen Leahy.

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