

Empowering Women and Providers for Improved Care of Urinary Incontinence: EMPOWER Study



Lead organization

University Hospitals Cleveland Medical Center (UH Urology Institute, UH Primary Care Institute, UH Population Health)

Partner organizations

Case Western Reserve University

ECHO Chicago

Renalis

Principal investigators

Adonis K. Hijaz, MD, University Hospitals Cleveland Medical Center,

Goutham Rao, MD, University Hospitals Cleveland Medical Center

Geographic region

Northeast Ohio

Project period

February 2022 – 2025

Contact

Elisar Khawam, Project Manager

Email: Elisar.Khawam@uhhospitals.org

Phone: 216 844 2493

Project Overview

The EMPOWER project is assessing effectiveness in treatment for women with urinary incontinence (UI) comparing three study arms. The first arm consists of usual care; the second arm adds nurse navigation; and the third arm involves usual care, nurse navigation, and the UI CeCe mobile chatbot, an interactive artificial intelligence-based conversation platform.

Nurse navigators help guide participants in their UI management efforts in the second and third intervention arms. In the third intervention arm, patients additionally interact with CeCe daily through texting and scripted responses to educate patients and collect data on patient progress. All patients receive printed educational resources and complete electronic questionnaires.

Project ECHO, a model for bringing best practices to primary care practitioners, is employed to increase the workforce capacity of primary care providers (PCPs) and nurse navigators, in order to increase provider education and empowerment related to treating UI. The series is comprised of eight weekly one-hour sessions facilitated by a team of experts and includes short didactic presentations followed by participant-led case examples.

Characteristics of the Primary Care Systems and Patients Served

The target patient service population includes women aged 18+ years who receive outpatient primary care services from the University Hospitals Primary Care Institute (PCI) integrated network of 109 outpatient primary care practices, 76 of which are participating in the project. PCI is owned and operated by University Hospitals Health System (UHHS), UH Medical Practices (UHMP) in a 16-county geographic service area subdivided into six patient care regions. Among all practices, 73 percent are located in urban settings, 15 percent in suburban, and 12 percent in rural areas.

Approximately 14 percent of established PCI patients are African American. Across communities served by the practice sites, the proportion of children in poverty (an indicator of socioeconomic status) ranges from 8-25 percent on a county-level. Compared to the UHHS catchment region, the PCI female population has a larger proportion of elderly aged 65+ (41% vs. 24%), obesity (54% vs 31%), and diabetes (16% vs. 12%). All the women receiving care from PCI are insured through commercial (59%) or public insurance (Medicare or Medicaid).

Goals

This project will implement the EMPOWER program across a large network of primary care practices and create an evidence-based patient-centered care pathway. The project aims to assess the impact of the EMPOWER intervention on outcomes important to patients as well as provider knowledge and confidence in managing UI symptoms.



Notable Features

Aims

1. Assess outcomes to patients (compared with usual care).
2. Assess provider knowledge and confidence, practice workflow, and satisfaction among providers and staff.
3. Assess barriers and facilitators to adoption of projects addressing UI and the implementation of the EMPOWER interventions.

- The EMPOWER study underscores the importance of understanding patient-related and practice-related barriers to incorporating management of UI in the primary care setting.
- The project fosters patient education-empowerment impact through direct interaction with nurse navigators and artificial intelligence, CeCe.
- The project team is conducting large-scale screening, using a multilevel (patient, provider, and system) approach, and working within an integrated health care system.

Evaluation Overview

The EMPOWER study evaluation plan is guided by the RE-AIM model, using mixed methods to assess intervention Reach, Effectiveness, Adoption, Implementation, and Maintenance with examination of inner and outer contextual factors using the Practical Robust Implementation and Sustainability Model (PRISM). The evaluation follows phased implementation of a cluster randomized trial (clusters defined as primary care practices) where randomization occurs across the three study arms. Three phases, each containing cohorts from the three study arms, were rolled out consecutively across the project. The following constructs were captured: reach, representativeness, program fidelity, office staff education, education and empowerment of PCPs, nurse navigation activities, and usage of CeCe.

Data sources include electronic medical records (EMR), nurse navigator logs, training attendance sheets, fidelity checklists, monthly site surveys (assessing implementation process and levels of provider knowledge and confidence), Project ECHO surveys, and patient symptom and satisfaction surveys at baseline and post intervention.

Semi-structured interviews are also conducted with the lead provider and project manager at up to 45 offices including participating sites as well as those that opt-out of participating in the program. Questions assess barriers and facilitators to adoption of projects addressing UI and the implementation of this project specifically.

Quick Numbers as of January 2024

Number of participating practices: **76**

Number of women enrolled in the study: **303**

Number of women completed screening: **>11,000**

Proportion of women who screened positive for UI: **57%**

“EMPOWER addresses barriers to diagnosing and managing urinary incontinence in the primary care setting utilizing large-scale screening, empowering patients to discuss UI with providers, training providers, facilitating care through nurse navigation, and engaging patients in self-management of UI through a mobile ‘chatbot.’ Ours is a sustainable, technology-based approach to an often overlooked but important problem which affects millions of American women. As our project name implies, we empower women to seek the treatment which best meets their individual needs.”

– Adonis Hijaz, MD
Co-PI

Chief, Division of Female Pelvic Surgery and Vice
Chairman, Department of Urology, University Hospitals
Cleveland Medical Center

Goutham Rao, MD
Co-PI
Chairman, Department of Family Medicine & Community
Health, University Hospitals Cleveland Medical Center
