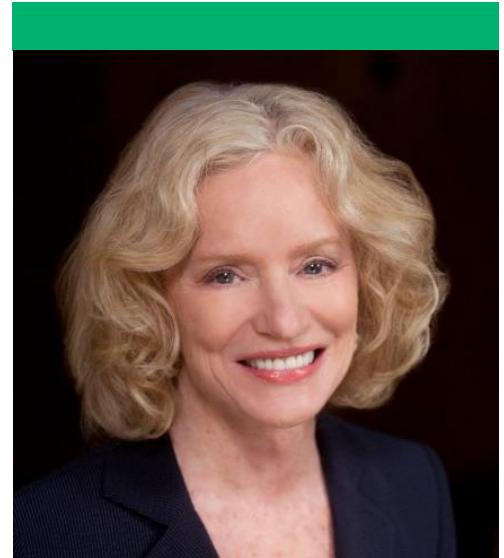


Lynda H. Powell, PhD, MEd

The Charles J. and Margaret Roberts Professor of Preventive Medicine

Advancement of Medicine

Dr. Powell and her team are international leaders in solving two key problems in the current healthcare system: (1) there are too few evidence-based lifestyle treatments available in clinical practice for patients with major chronic diseases who want them; and (2) there are too few young investigators who have the training and support for developing lifestyle treatments for the major chronic diseases and evaluating them progressively and rigorously in high-visibility clinical trials.



Evidence-based lifestyle treatments: The Enhancing Lifestyles in the Metabolic Syndrome multisite behavioral efficacy clinical trial, also known as ELM, was published online in *JAMA Internal Medicine* in November 2025, on the same day as a coordinated presentation at the prestigious “Late Breaking Trials” symposium of the American Heart Association Annual Meeting in New Orleans. The ELM lifestyle program was designed for patients with metabolic syndrome, which is diagnosed when at least three out of five cardiometabolic risk factors exist. Metabolic syndrome now affects 42% of U.S. adults.

The question of interest was whether a six-month lifestyle program could produce sustained improvement in health at the 24-month follow-up, 18 months after treatment ended. In 618 patients with metabolic syndrome across five national sites, ELM showed that metabolic syndrome remission at 24 months occurred in 28% of patients in the treatment group, compared with 21% in the comparator group. The innovation of ELM was the ability to produce lifestyle changes that stick after treatment ends. Commentary from the medical community following the publication of the primary paper referred to the trial as a “profound innovation” and a “vital step for the field from short-term risk reduction to long-term engineering.” The rich ELM database has made it possible to publish and/or prepare 10 ancillary studies that support the main findings. These results advance the science of lifestyle change by focusing on patients who both need and want to change their



lifestyles, the simplification of lifestyle targets and the extent to which changes can be sustained after treatment ends. This important clinical trial was conducted entirely at Rush, using rigorous methodology, and helps establish Rush as a leader in evidence-based lifestyle interventions to prevent or manage chronic diseases.

Pipeline of young investigators: We are leaders in the methodologies for developing behavioral treatments using small, early-phase studies and the methodologies for conducting rigorous behavioral clinical trials. Dr. Powell is now a leading faculty member at three training institutes for junior faculty. The first, called the National Institutes of Health Summer Institute for Behavioral Trials, has been operating since 2001 and focuses on methodologies for the design and evaluation of behavioral or non-pharmacological interventions. She is a founding faculty member and former co-director and has now trained approximately 850 junior faculty.

The second, called the National Institutes of Health ORBIT Institute, has been operating since 2022. Dr. Powell is a founding faculty member and former co-director of this course, which aims to develop behavioral treatments using a series of progressive questions answered with a series of progressive small sample methodologies. Dr. Powell co-created the ORBIT model for the development of behavioral treatments, which serves as the foundation of this institute. The ORBIT model is now featured in a variety of funding opportunities at the National Institutes of Health, over 70 publications from junior investigators, 28 grants funded by the National Institutes of Health in fiscal year 2025 and 10 presentations at professional meetings in 2025. The book Dr. Powell wrote in 2021 on behavioral trial methods, entitled “Behavioral Clinical Trials for Chronic Diseases: Scientific Foundations,” is the required text for the Summer Institute, the ORBIT Institute, and a course on behavioral clinical trials that is now offered to all faculty at Rush, the University of Chicago and Northwestern University. We have now trained over 100 junior faculty and just submitted a renewal for another five years.

The third, called the International Behavioral Trials Network, has been operating since 2013, and Dr. Powell is a core and founding faculty member. The network now includes training in behavioral clinical trials for young investigators from over 25 countries.

Selected Publications in 2025

- “Rome Foundation working team report: Consensus statement on the design and conduct of behavioural clinical trials for disorders of gut-brain interaction,” *Alimentary Pharmacology & Therapeutics*, 2025.
- “Behavioral interventions — past, present and future: Proceedings of the 5th International Behavioural Trials Network international hybrid meeting,” *Annals of Behavioral Medicine*, 2025.
- “Food security and cardio-metabolic risk in individuals with metabolic syndrome,” *International Journal of Environmental Research in Public Health*, 2025.
- “The association between use of tobacco, alcohol, or cannabis and metabolic syndrome,” *American Journal of Health Behavior*, 2025.
- “The relationships between lifestyle behaviors, health perceptions, and psychosocial outcomes of metabolic syndrome severity,” *Diabetes, Metabolic Syndrome and Obesity*, 2025.
- “Patient preferences for lifestyle management in a multi-site randomized lifestyle trial for remission of the metabolic syndrome,” *International Journal of Behavioral Medicine*, 2025.
- “Longitudinal association of change in physical activity and cognitive performance in midlife women: Study of Women’s Health Across the Nation,” *Preventive Medicine*, 2025.
- “Association between self-reported behavioral habits and their respective behavioral risk factors in individuals with metabolic syndrome,” *Appetite*, 2025.
- “Determining sample size for pilot trials: a tutorial,” *British Medical Journal*, 2025.
- “Association between urinary incontinence and device-measured physical activity: A cross-sectional study,” *American Journal of Obstetrics and Gynecology*, 2025.
- “Lifestyle intervention for sustained remission of metabolic syndrome. A randomized clinical trial,” *JAMA Internal Medicine*, 2025.
- “Beyond remission: a ‘habit resilience’ framework for sustained metabolic health.” A reply to the Letter to the Editor, *JAMA Internal Medicine*, 2025.



Grants in 2025

- McGowan Charitable Fund; Powell (PI); 8/15/2018 – 12/31/2025; Role: Principal Investigator
The ELM Multi-Site Behavioral Clinical Trial
- U19 AG063720; Janssen (PI); 7/01/2020 – 2/30/2026; Role: Co-Investigator (Principal Investigator: 1994-2009)
The Study of Women's Health Across the Nation (SWAN): The Impact of Midlife and the Menopause Transition on Health and Functioning in Early Old Age
- R25 CA287902; 2/01/24 – 1/31/28; Role: Founding Faculty Member (since 2001), Co-Director (2008-2013)
The Summer Institute: Innovative Approaches to Randomized Behavioral Clinical Trials
- R25 CA244065; Naar (PI); 9/02/22 – 8/31/26; Role: Co-Director
The ORBIT Institute: A Short Course in Behavioral Treatment Development
- K99-R00.MH140055; Henry (PI); 5/01/25 – 5/01/30; Role: Principal Mentor
Augmenting Parent Management Training with Naturalistic Skills for Child Temper Outbursts Using Machine Learning and a Smartphone App

The Year Ahead: 2026 and Beyond

Our top priority in 2026 is to evaluate the extent to which the ELM program can be implemented in the current health care system. Since our clinical trial established the efficacy of the ELM treatment, the next step is to determine how to make this program available to patients by studying implementation approaches. To support this effort, we will continue our work preparing and publishing 10 ancillary papers from ELM. Working jointly in the research and education arenas, we will continue to build a pipeline of young investigators who will be future leaders in preventive care for patients with chronic diseases.

With Gratitude

I would like to express my gratitude to the donors of the Charles J. and Margaret Roberts Professorship in Preventive Medicine. Your support for preventive medicine research, education and practice has advanced our understanding of how to bring evidence-based preventive lifestyle programs to the patients who need and want them. Lifestyle is the fundamental etiology of most chronic and some infectious diseases, but the current health care system focuses more on managing diseases after they occur than on preventing them. With your partnership, we aim to shift these priorities.