

BIOGRAPHICAL SKETCH

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NAME: Mary Hannan

eRA COMMONS USER NAME (credential, e.g., agency login): MHANNA22

POSITION TITLE: Postdoctoral Fellow

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	Start Date MM/YYYY	Completion Date MM/YYYY	FIELD OF STUDY
Marquette University Milwaukee, WI	Honors BSN	8/1998	05/2002	Nursing
Marquette University Milwaukee, WI	MSN	8/2002	5/2005	Nursing; Acute Care Nurse Practitioner
University of Illinois at Chicago Chicago, IL	PhD	8/2016	5/2019	Nursing Science; Biobehavioral Health Science
University of Illinois at Chicago Chicago, IL	T32 Fellowship	7/2019	In progress	Lifestyle Medicine

A. Personal Statement

I am a nurse scientist interested in the influence of health behaviors, particularly sedentary behavior and physical activity, on health and outcomes in individuals with kidney disease. My clinical and research experience are the foundation of my interest in this area of research. I have over ten years of clinical experience as a nurse practitioner, working with diverse, chronically ill patients at academic medical centers in the Midwest. I began participating in research while as a clinician, which inspired me to pursue further education to discover ways to improve health and outcomes for individuals with kidney disease. During my PhD training, I was a research assistant and participated in the planning, initiating, and monitoring of exercise intervention studies for individuals with chronic diseases. I gained invaluable experience during this assistantship with research methods and design, as well as the techniques of actigraphy, cognitive assessment, vascular ultrasound and tonometry, and physical function testing. My dissertation focused on differences and relationships between cognitive function, vascular function, and physical inactivity in older adults with and without chronic kidney disease (CKD). I have shown leadership as a new investigator by being chosen as a T32 Precision Lifestyle Medicine (PREMIER) Postdoctoral Fellow at the University of Illinois at Chicago College of Medicine, as well as being selected as a Robert Wood Johnson Foundation Future of Nursing Scholar Postdoctoral Fellow. As a postdoctoral fellow in PREMIER, I am receiving training in the biobehavioral mechanisms of behavior change for multimorbidity prevention in individuals with kidney disease under the mentorship of Dr. James Lash. As part of my training, I am exploring relationships between physical activity, sedentary behavior, frailty, and outcomes in the Hispanic Community Health Study/Study of Latinos (HCHS/SOL) and the Chronic Renal Insufficiency Cohort (CRIC) study. I will also be investigating barriers and self-efficacy for physical activity in individuals with kidney disease. My long term goal is to become a tenured professor and independent nurse researcher participating in team science at a research focused university to **develop behavioral interventions to improve outcomes for patients with kidney disease.**

B. Positions and Honors**Relevant Positions**

2003-2004	Research Assistant- Marquette University
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2005-2012	Nurse Practitioner- Division of Nephrology- The Medical College of Wisconsin
2010-2012	Adjunct Faculty Member- Marquette University
2012-2014	Nephrology Nurse Practitioner- University of Chicago
2014-2015	Nurse Practitioner, Pre-Kidney and Pre-Pancreas Transplant Coordinator- Northwestern Memorial Hospital
2015-2016	Associate Dean of Faculty, Chamberlain College of Nursing- Chicago campus
2016-2019	Nurse Practitioner, Weekend Team Lead, Paragon Clinical, LLC
2016-2019	Research Assistant- Department of Biobehavioral Health Sciences- College of Nursing- University of Illinois at Chicago
2016-present	Visiting Professor, Chamberlain College of Nursing
2017-2019	Teaching Assistant- College of Nursing- University of Illinois at Chicago

Honors

2001-present	Alpha Sigma Nu Jesuit Honors Society
2002	Marquette University College of Nursing Berens Award
2002-present	Sigma Theta Tau International Honor Society of Nursing
2011-2015	American Nurse Credentialing Center (ANCC) Content Expert Panel Member: Adult-Gerontology Acute Care Nurse Practitioner exam
2016-2019	Robert Wood Johnson Foundation Future of Nursing Scholar
2017	Nephrology Nursing Journal New Author Award
2017	Graduate College Student Presenters Award
2017	Graduate Student Council Travel Award
2017	Heath Professionals Student Council Travel Award
2018	University of Illinois at Chicago Provost/Deiss Research Award
2018	2017-2018 Seth and Denise Rosen Memorial Research Award
2018	Illinois Nurses Foundation Arthur L. Davis Scholarship Award
2018	American Society of Nephrology (ASN) Kidney STARS Program Award Recipient
2018	University of Illinois 2018-2019 Paul D. Doolen Graduate Scholarship for the Study of Aging
2020	Midwest Nursing Research Society (MNRS) Health Promoting Behaviors Across the Lifespan Research Interest Group Outstanding Dissertation Award

C. Contributions to Science

1. We have conducted exploration to **better understand the burden of illness in individuals with kidney disease**. We have investigated cognitive impairment and vascular dysfunction in individuals with kidney disease, who are disproportionately affected by these comorbidities. It is established that individuals with CKD have low levels of physical activity, but it is less clear why. Through integrative review, we explored how the burden of illness in this population can limit the ability to participate in exercise.

- a. **Hannan M**, Bronas UG. Barriers to exercise for patients with renal disease: an integrative review. *J Nephrol.* 2017; 30(6): 729-741. <https://doi.org/10.1007/s40620-017-0420z>
- b. **Hannan M**, Steffen A, Quinn L, Collins EG, Phillips SA, Bronas UG. The assessment of cognitive function in older adult patients with chronic kidney disease: an integrative review. *J Nephrol.* 2018:1-20. <https://doi.org/10.1007/s40620-018-0494-2>
- c. **Hannan M**, Phillips S, Collins E, Quinn L, Steffan A, Bronas U. (2019) Kidney disease and cognitive impairment in older adults: The state of the science. *J Clin Ex Phys*, 2019; 8(2): 74-81. <https://doi.org/10.31189/2165-6193-8.2.74>

2. Our research has helped **increase the understanding of the influence of exercise and sedentary behavior on health in kidney disease**. In journals across disciplines, we have explored the potential benefits

of exercise for individuals with CKD and what nephrology nurses can do to encourage their individuals to participate in physical activity. We also examined the influence of sedentary behavior on kidney function.

- a. **Hannan M.** Exercise and hemodialysis: the missing piece of tertiary prevention. *Nephrol Nurs J.* 2016;43(4):317-321. PMID: 30550058
- b. Bronas UG, Puzantian H, **Hannan M.** Cognitive Impairment in Chronic Kidney Disease: Vascular Milieu and the Potential Therapeutic Role of Exercise. *BioMed Res Int.* 2017;2017 <https://doi.org/10.1155/2017/2726369>
- c. **Hannan M,** Ricardo A, Cai J, et al. Abstract MP17: Sedentary Behavior and Longitudinal Changes in Kidney Function in US Hispanics/Latinos: Findings From the Hispanic Community Health Study/Study of Latinos (HCHS/SOL). *Circulation.* 2020;141(Suppl_1):AMP1 https://doi.org/10.1161/circ.141.suppl_1.MP17

3. Our research has helped explore factors that influence **health outcomes**. Through analysis on data from hospitalized individuals with acute kidney injury, we found the dismal outcomes of patients who required renal replacement therapy. By exploring the dangers associated with over the counter medication labels, we described how the content of these labels could contribute to poor outcomes.

- a. Hussain S, Piering W, Mohyuddin T, Saleh M, Zhu Y, **Hanan M,** & Cohen E. Outcome among patients with acute renal failure needing continuous renal replacement therapy: A single center study. *Hemodial Int.* 2009;13(2):205-214. (erratum with name correction in issue14(1))
- b. Trivedi H, Trivedi A, **Hannan MF.** Readability and comprehensibility of over-the-counter medication labels. *Renal Failure.* 2014;36(3):473.

4. Physical activity has a very important role in maintaining health and quality of life for many individuals with chronic diseases. I have been involved in work that has **explored the potential benefits of exercise training in chronically ill adults**. It is known that individuals with peripheral arterial disease (PAD) have improved claudication symptoms when they participate in exercise training. The work we have done has helped explore novel ways to improve walking distance in individuals with PAD.

- a. Bronas UG, Everett S, Steffen A, Briller J, **Hannan M,** Hernandez A, Collins E. Rhythmic Auditory Music Stimulation Enhances Walking Distance in Patients With Claudication: A Feasibility Study. *J Cardiopulm Rehabil Prev.* 2017. <https://doi.org/10.1097/HCR.0000000000000300>
- b. Bronas, U., Everett, S., Steffen, A., Briller, J., **Hannan, M.,** Hernandez, A., & Collins, E. A Music-Guided Home-Based Claudication Rehabilitation Program. *J Clin Ex Phys,* 2019; 8(3): 102-107. [https://doi:10.31189/2165-6193-8.3.102](https://doi.org/10.31189/2165-6193-8.3.102)

Complete List of Published Work in MyBibliography:

<https://www.ncbi.nlm.nih.gov/myncbi/1LK-fdIWOCYkJ/bibliography/public/>

D. Additional Information: Research Support and/or Scholastic Performance

Research Support

Extramural

T32 Precision Lifestyle Medicine and Translation Research (PREMIER) Postdoctoral Training Program (T32HL134634) (July 2019- July 2021)

2019 Robert Wood Johnson Foundation (RWJF) Future of Nursing Scholars Postdoctoral Fellow (July 2019- July 2021)

2018 American Nephrology Nurses Association Evidence Based Practice Research Grant

Robert Wood Johnson Foundation (RWJF) Future of Nursing Scholars- Predoctoral Fellowship (August 2016-May 2019)

Intramural

2018 University of Illinois at Chicago Provost/Deiss Research Award

2017-2018 Sigma Theta Tau International, Alpha Lambda Chapter, Research Funds

2017-2018 Seth and Denise Rosen Memorial Research Award