

Sarah A. Welch, D.O., M.A.

VA Quality Scholar, Tennessee Valley Healthcare System
Instructor, Department of Physical Medicine & Rehabilitation

Last Update: May 30, 2023

Education:

- 08/2020 – 05/2022 M.P.H. Vanderbilt University School of Medicine Nashville, TN.
Concentration: Epidemiology.
- 08/2011 – 06/2016 D.O. New York College of Osteopathic Medicine (NYCOM) Old
Westbury, NY. Mentored Research Year 2014 - 2015: Spaulding
Rehabilitation Hospital Boston, MA. Mentor: Jonathan F. Bean.
- 08/2009 – 01/2013 M.A. Boston University School of Medicine Boston, MA. Degree:
Master in Clinical Investigation. Thesis Title: “Prognostic Factors for
Patients with Diffuse Large B Cell Lymphoma and Transformed
Indolent Lymphoma Undergoing Autologous Stem Cell
Transplantation in the Positron Emission Tomography Era.”
- 08/2007 – 09/2009 M.A. Boston University School of Medicine Boston, MA. Degree:
Master in Medical Sciences. Thesis Title: “Role of MMPs in the
Formation of AL Light Chain Fibrils and Cellular Response to AL
Serum.”
- 08/2003 – 05/2007 B.S. Rutgers University, New Brunswick, NJ. Major: Biological
Sciences, Certificate: Scientific & Technical Writing.

Postgraduate Training:

- 07/2020 – present VA Quality Scholars Fellowship, Tennessee Valley Healthcare
System Nashville, TN.
- 07/2016 – 06/2020 Residency Training Program in Physical Medicine & Rehabilitation,
Vanderbilt University Medical Center Nashville, TN.

Licensure

- 04/2020 – present Tennessee, License Number DO 3987

Academic Appointment:

08/2020 – present Instructor. Department of Physical Medicine & Rehabilitation, Vanderbilt University School of Medicine.

Hospital and Health Care Organization Clinical Service Responsibilities:

08/2022 – present Attending Physician. Vanderbilt University Hospital Consults.

09/2020 - 08/2022 Attending Physician. Vanderbilt Skilled Nursing Facilities.

Employment:

11/2009 – 06/2011 Regulatory Clinical Research Coordinator, Cooperative Group Clinical Trials, Dana Farber Cancer Institute, Boston, MA.

Professional Organizations:

- American Academy of Physical Medicine and Rehabilitation (AAPM&R)
- Association of Academic Physiatrists (AAP)
- American Congress of Rehabilitation Medicine (ACRM)
- American Geriatrics Society (AGS)
- Gerontological Society of America (GSA)
- American Medical Directors Association (AMDA)

Intramural Professional Activities:

2022 – present Representative, Physical Medicine and Rehabilitation, Tennessee Valley Healthcare System. Patient Centered Multidisciplinary Care for Veterans Undergoing Surgery (PAUSE): a multicenter Hybrid 1 Clinical Effectiveness-implementation Intervention Trial.

2019 – present Mobility Committee Leader, Research Leader, Age-Friendly Health System, Vanderbilt University Medical Center.

2017 – 2018 House Staff Advisory Council Representative, Physical Medicine & Rehabilitation, Vanderbilt University Medical Center.

Extramural Professional Activities:

2022 – present PM&R Representative, Geriatrics for Specialists Initiative, American Geriatrics Society

2022 – present Geriatrics Representative, American Academy of PM&R

2020 – present	Ad Hoc Reviewer, Journal of Gerontology: Medical Sciences.
2019 – present	Membership Committee, Association of Academic Physiatrists.
2018 – present	Rehabilitation Medicine Scientist Training Program (RMSTP), Association of Academic Physiatrists.

Special Recognition:

2020	Best Presentation, Vanderbilt University Medical Center Department of PM&R Resident Research Day.
2019	Top Scoring Resident First Author Abstract, Presidential Poster Session, American Geriatrics Society.
2014	Medical Student Training in Aging Research (MSTAR) Program Award, American Federation for Aging Research.

Teaching Activities:

08/2022 – present	Hospital Consults, Resident Physician Clinical Rotation, Department of Physical Medicine & Rehabilitation, Vanderbilt University Hospital. 1 hour per week.
07/2020 – present	Geriatrics Curriculum, Resident Didactics, Department of Physical Medicine & Rehabilitation, Vanderbilt University Medical Center. 6 hours per academic year.
07/2020 – 08/2022	Clinical Rehabilitation Curriculum, Vanderbilt Contracted Skilled Nursing Facilities, Rehabilitation Department. 1 hour per month.

Mentorship:

2022 – present	Quality Improvement Course. Third and fourth year medical students, Vanderbilt University School of Medicine. <u>Names of mentees:</u> Alexandra Williams and Trevor Anesi.
2022 – present	Research Project, Christy Kang, Second year medical student, Philadelphia College of Osteopathic Medicine, Georgia Campus.
2021 – present	Research Project. Alexandra E Petrakos, Geriatric Medicine Fellow.
2019 – 2020	Quality Improvement Course. Third and fourth year medical students, Vanderbilt University School of Medicine. <u>Names of mentees:</u> Chandler Montgomery, Daniel Pereira, Jeremy Brittingham Hatcher, Sneha Lingam.

Research Program:

- 1) Veterans Affairs GEC NILTC FY2023 Mentored Partnership Grant
Budget: \$79,000 per year.
PI: Chelsea K Rick and **Sarah A Welch**
Objective: Establish a mentoring partnership between the Michael E. DeBakey VAMC in Houston, TX (mentor site) and Tennessee Valley Healthcare System-Nashville Campus and Alvin C. York (Murfreesboro) Campus (expansion site) to establish local expertise and advance the implementation of the Patient Priorities Care approach, specifically within Home-Based Primary Care. Goals of the work are to: 1) implement a PPC toolkit at the expansion site to guide adoption of the PPC approach, including specific tele-mentoring from the mentor team to assure implementation of the PPC approach, and 2) establish the competencies of facilitators and clinicians who are performing the PPC approach at each of the expansion sites.
- 2) Vanderbilt Institute for Clinical and Translational Research (VICTR) FY2021 Grant
Budget: \$4,182
PI: **Sarah A Welch**
Objective: Custom Data Pull to study participant demographics, health characteristics, and hospital outcomes from older adults admitted to the Vanderbilt University Medical Center Acute Care for Elders Unit in 2020. The exposure of interest is the delivery of 4M's care (What Matters Most, Medications, Mentation, Mobility). Statistical modeling is used to study the relationship between the exposure (4M's) and the participant demographics, health characteristics and hospital outcomes.
- 3) West End Home Foundation FY2021 Grant
Budget: \$70,000
PI: Mariu C Duggan,
Co-Investigator: **Sarah A Welch**
Objective: Implementation of the age-friendly initiative on the Vanderbilt University Medical Center Acute Care for Elders (ACE) unit using a quality improvement framework. Refine processes and documentation to show measurable impact. Move the initiative into one additional hospital unit by the end of the grant cycle.

Peer Reviewed Publications:

- [1] Areoye G, Kumar, A, Okpe A, Shi Y, DiGravio CD, Schildcrout J, Nair D, **Welch SA**, Rick C, Trochez R, Kripalani S, Bell SP. (2023). "The association of markers of vulnerability and frailty on mortality among hospitalized adults with heart failure." (under review)
- [2] Chen DF, Van J, Easterling, MR, **Welch SA**, Patel MB, Davidson MA, LaJunen TJ, Ely EW, Jackson JC, Roberson SW. (under revision) Self-Reported Driving

Behaviors and Outcomes in Intensive Care Unit Survivors: A Survey and Analysis.

- [3] Jordano JO, Vasilevskis EE, Duggan MC, **Welch SA**, Schnelle JF, Simmons SF, Ely EW, Han JH. (2023). The Effect of Physical and Occupational Therapy on Delirium Duration in Older Emergency Department Patients who are Hospitalized. *J Am Coll Emerg Physicians Open*. 2023;4(1):e12857.
- [4] Pereira DE, **Welch SA**, Montgomery CD, Hatcher JB, Duggan MC, Greysen SR. (2021). Low Hospital Mobility – resurgence of an old epidemic within a new pandemic and future solutions. *Age Ageing*. 2021;50(5):1439-1441.
- [5] Montgomery CD, Pereira DE, Hatcher JB, Kilbury D, Ballance S, Bradham T, Duggan MC, **Welch SA**. (2021). Improving the assessment and documentation of patient mobility using a quality improvement framework. *Geriatr Nurs*. 2021;42(2):325-330.
- [6] **Welch SA**, Ward RE, Beauchamp MK, Leveille SG, Trivison T, Bean JF. (2020). The Short Physical Performance Battery (SPPB): A Quick and Useful Tool for Fall Risk Stratification Among Older Primary Care Patients. *J Am Med Dir Assoc*. 2020;S1525-8610(20)30838-0.
- [7] Ward RE, Quach L, **Welch SA**, Leveille SG, Leritz E, Bean JF. (2019). Interrelated Neuromuscular and Clinical Risk Factors That Contribute to Falls. *J Gerontol A Bio Sci Med Sci*. 2019;74(9):1526-1532.
- [8] Shea CA, Ward RE, **Welch SA**, Kiely DK, Goldstein R, Bean JF. (2018). Inability to perform the repeated chair stand task predicts fall-related injury in older primary care patients. *Am J Phys Med Rehabil*. 2018;97(6):426-432.
- [9] **Welch SA**, Ward RE, Kurlinski LA, Kiely DK, Goldstein R, VanSwearingen J, Brach JS, Bean JF. (2016). Straight and curved path walking among older adults in primary care: associations with fall-related outcomes. *PMR*. 2016;8(8):754-760.
- [10] Armand P*, **Welch S***, Kim HT, LaCasce AS, Jacobsen ED, Davids MS, Jacobson C, Fisher DC, Brown JR, Coughlin E, Freedman AS, Chen YB. (2013). Prognostic factors for patients with diffuse large B cell lymphoma and transformed indolent lymphoma undergoing autologous stem cell transplantation in the positron emission tomography era. *Br J Haematol*. 2013;160(5):608-617.
*Both authors contributed equally to this work.
- [11] Liu SW, Jiao X, **Welch S**, Kiledjian M. (2008). Analysis of Mammalian mRNA Decapping. *Methods Enzymol*. 2008;448:3-21.

Invited Book Chapter:

Yang AJ, **Welch SA.** (2018). 'Cervical Facet Arthropathy' in *Frontera: Essentials of Physical Medicine & Rehabilitation, 4e*. Elsevier Health Sciences; Chapter 2, p. 8-11.

Oral Presentations:

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| 2/2023 | National Talk: Association of Academic Physiatrists Annual Meeting, Long Beach, California. "The Rehabilitation Treatment Specification System: Opening the Black Box of Rehabilitation." |
| 11/2022 | National Talk: American Congress of Rehabilitation Medicine Annual Conference, Chicago, Illinois. "When, Where, and Why? Current State and Opportunities in Rehabilitation to Optimize Post-Acute Care Transitions" |
| 3/2022 | National Talk: Vanderbilt University Medical Center Department of Physical Medicine and Rehabilitation Grand Rounds. Virtual. "Age-Friendly Health System: Progress and Evidence from Vanderbilt's Acute Care for Elders Unit." Virtual. |
| 12/2021 | International Talk: International Society of Physical and Rehabilitation Medicine. Virtual. "Fatigue Management – Addressing Lack of Energy and Drive in Older Adults." |
| 07/2021 | National Talk: Michigan Health and Hospital Association Keystone Center. Age-Friendly Action Community. Virtual. "Vanderbilt University Hospital – Age-Friendly Journey." |
| 03/2020 | International Talk: Association of Academic Physiatrists Annual Meeting, Orlando, Florida. "Reconceptualizing Rehabilitative Care Towards Improving Outcomes Across the Care Continuum: A Multi-Institutional Perspective." |
| 02/2019 | National Talk: Association of Academic Physiatrists Annual Meeting, San Juan, Puerto Rico. "New Discoveries with 'Old' Data: Secondary Analysis in Rehabilitation Research." |
| 05/2015 | Seminar: Health and Disability Research Institute, Boston University, Boston, MA. "Predicting Fall-Related Outcomes: A Comparison of Performance-Based Measures." |
| 08/2014 | Seminar: Medical Student Training in Aging Research, Brigham and Women's Hospital, Boston, MA. "Fall-Related Outcomes: A Comparison of Curved and Straight Path Walking Among Older Adults." |

First Author Poster Presentations:

- 04/2022 Society of Hospital Medicine Converge Conference, Nashville, TN. Research Presentation. "Age-Friendly Initiative: Outcomes from an Acute Care for Elders Unit."
- 08/2021 Veterans Affairs Quality Scholars Summer Institute, Virtual. Quality Improvement Presentation: "The Age-Friendly Initiative: Implementation on an Acute Care for Elders Unit."
- 11/2019 Gerontological Society of America Annual Scientific Meeting, Austin, TX. Research Presentation: "Delirium Severity and 6-month Cognitive Outcomes."
- 05/2019 American Geriatrics Society Annual Meeting, Portland, OR. Research Presentation: "Associations between markers of inflammation and frailty in survivors of hospitalization for critical illness."
- 02/2019 Association of Academic Physiatrists Annual Meeting, San Juan, PR. Research Presentation: "Underserved and Overburdened: Rehab Candidates in a State Without Access to Pediatric Inpatient Rehabilitation."
- 02/2016 Association of Academic Physiatrists Annual Meeting, Sacramento, CA. Research Presentation: "Does Performance Based Testing Stratify Fall Risk Among Older Primary Care Patients?"
- 02/2015 Association of Academic Physiatrists Annual Meeting, San Antonio, TX. Research Presentation: "Straight and Curved Path Walking Among Older Adults in Primary Care: Associations with Fall-Related Outcomes."