

(as of 4/11/2025)

Peer-Reviewed Publications by Research Center at VNS Health Staff**2025**

Chastain, A.M., Shang, J., Murali, K. P., **King, L.**, Ogunlusi, C., Zhao, S., Kang, J.A., Zhao, Y., Dualeh, K., **McDonald, M.V.** (2025). [Development of and Testing Novel Questionnaires Assessing Palliative Care-Related Knowledge, Attitudes, and Confidence Among Home Healthcare Clinicians, Patients and Caregivers](#). Home Healthcare Now. 43(1), 21-31.

Matus, A., **Riegel, B.**, Rickels, M. (2025) [Interoceptive Awareness Is Associated with Impaired Awareness of Hypoglycemia in Adults with Type 1 Diabetes](#). Diabetes Care. 48(1), 101-105.

Shang, J., Perera, U.G., Liu, J., Chastain, A., **Russell, D.**, Wang, J., Caprio, T., **Barron, Y.**, Szanton, S., **McDonald, M.** (2025, In press). [Examining infection risk disparities among home health care patients using the area deprivation index \(ADI\)](#). Journal of the American Medical Directors Association.

Vergez, S., Barron, Y., McDonald M.V. (2025, In press). [Disparities in Timely Receipt of Home Healthcare: Neighborhood Disadvantage and Delayed Start-of-Care Visits in New York City](#). Journal of the American Geriatrics Society.

2024

Arbaje, A.I., Hsu, Y.-J., Greyson, S., Gurses, A.P., Marsteller, J., **Bowles, K.H., McDonald, M. V., Vergez, S.**, Harbison, K., Hohl, D., Carl, K., Leff, B. (2024). [Hospital-to-home-health transition quality \(h3tq\) index: Further evidence on its validity and recommendations for implementation](#). Medical Care. 62(8), 503-510.

Arbaje, A.I., Hsu, Y.J., Zhou, Z., Greyson, S., Gurses, A P., Keller, S., Marsteller, J., **Bowles, K.H., McDonald, M.V., Vergez, S.**, Harbison, K., Hohl, D., Carl, K., Leff, B. (2024). [Characterizing changes to older adults' care transition patterns from hospital to home care in the initial year of covid-19](#). Journal of the American Geriatrics Society. 72(4), 1079-1087.

Arbaje, A., Hsu, Y., Keita, M., Greyson, S., Wang, J., Werner, N., Carl, K., Hohl, D., Jones, K., **Bowles, K.**, Chan, K., Marsteller, J., Gurses, Ayse P. Leff, B. (2024). [Development and Validation of the Hospital-to-Home-Health Transition Quality \(H3TQ\) Index: A Novel Measure to Engage Patients and Home Health Providers in Evaluating Hospital-to-Home Care Transition Quality](#). Quality Management in Healthcare. 33(3), 140-148.

Baah, F.O., Boateng, C.C., Gehrman, P., Miller, K., Brownlow, J., So, C., **Riegel, B.** (2024, E-published ahead of print) [Associations between neighborhood factors and insomnia and their spatial clustering in Philadelphia, Pennsylvania](#). Sleep Health. PMID: 39424477

Belfiglio, A., Page, S.D., Pettersson, S., van Rijn, M., Vellone, E., Westland, H., Freedland, K. E., Lee, C., Strömberg, A., Wiebe, D., Aryal, S., **Riegel, B.**, Jaarsma, T. (2024). [Lessons learned from the moment study on how to recruit and retain a target population online, across borders, and with automated remote data collection.](#) PLoS One. 19(9), e0307440.

Burgdorf, J. G., Ornstein, K. A., Liu, B., Leff, B., Brody, A. A., McDonough, C., Ritchie, C. S. (2024). [Variation in home healthcare use by dementia status among a national cohort of older adults.](#) The Journals of Gerontology. Series A, Biological Sciences and Medical Sciences. 79(3).

Burgdorf, J.G., Ritchie, C.S., Reckrey, J.M., Liu, B., McDonough, C., Ornstein, K. A. (2024, E-published ahead of print). [Drivers of community-entry home health care utilization among older adults.](#) Journal of the American Medical Directors Association. 25(4), 697-703.e2.

Chae, S., **Davoudi, A.**, Song, J., **Evans, L.**, **Bowles, K.H.**, **McDonald, M.V.**, **Barrón, Y.**, Min S., Oh S., Sharp D., Xu, Z., **Topaz, M.** (2024, E-published ahead of print). [Developing a clinical decision support framework for integrating predictive models into routine nursing practices in home health care for patients with heart failure.](#) Journal of Nursing Scholarship.

Cordoza, M.L., Anderson, B.J., Cevasco, M., Diamond, J.M., Younes, M., Gerardy, B., Iroegbu, C., **Riegel, B.** (2024: E-published ahead of print). [Feasibility and acceptability of using wireless limited polysomnography to capture sleep before, during, and after hospitalization for patients with planned cardiothoracic surgery.](#) Journal of Cardiovascular Nursing. PMID: 38509035.

Davoudi, A., Chae, S., **Evans, L.**, **Sridharan, S.**, Song, J., **Bowles, K.H.**, **McDonald, M.V.**, **Topaz, M.** (2024). [Fairness gaps in machine learning models for hospitalization and emergency department visit risk prediction in home healthcare patients with heart failure.](#) International Journal of Medical Informatics. 191, 105534.

Denfeld, Q.E., Hiatt, S.O., Rosenkranz, S.J., Camacho, S.A., Chien, C.V., Dieckmann, N.F., Ramos, T.B., Lee, C.S., **Riegel, B.**, Hansen, L. (2024) [Background and design of the physical frailty and symptom monitoring and management behaviors in heart failure \(PRISM-HF\) study: A mixed methods study.](#) International Journal of Nursing Studies Advances, 8, 100282.

Dorri, N., **Riegel, B.** (2024). [Development and psychometric evaluation of the self-care of informal caregivers inventory.](#) International Journal of Nursing Studies Advances. 7,100237.

Espinosa, C.G., **Vergez, S.**, **McDonald, M.V.**, Safford, M.M., Cho, J., Tobin, J.N., Mourad, O., Marcus, R., Bryan Ringel, J., Banerjee, S., Dell, N., **Feldman, P.**, Sterling, M.R. (2024). [Leveraging home health aides to improve outcomes in heart failure: A pilot study protocol.](#) Contemporary Clinical Trials. 143, 107570.

Franzosa, E., Kim, P.S., Moreines, L.T., **McDonald, M.V.**, David, D., Boafó, J., Schulman-Green, D., Brody, A.A., Aldridge, M.D. (2024, E-published ahead of print). [Navigating a “good death” during covid-19: Understanding real-time end-of-life care structures, processes, and outcomes through clinical notes.](#) The Gerontologist. 64(10).

Friesen, P., Wusinich, C., Lynch, K., **Russell, D.** (2024). ["A light at the end of the tunnel": Experiences with peer specialists in the open dialogue model.](#) *Psychiatric Services*. 75(3), 283-286.

Geisser, S.R., Amponsah, A., **Vasquez, F., McDonald, M.**, Coyne, N., Tamer, E., Luth, E. (2024, E-published ahead of print) [Developing and testing a two-part intervention: enhancing dementia instruction and tool in home hospice care.](#) *Journal of Applied Gerontology*.

Jaarsma, T., **Riegel, B.**, Stromberg, A. (2024, E-published ahead of print) [Self-care: A well-known but yet elusive concept. A discussion of theories, concepts, interventions, and measurement.](#) *European Journal of Cardiovascular Nursing*. PMID: 39743225.

Landau, A. Y., Venkatram, C., Song, J., **Topaz, M.**, Klitzman, R., Shang, J., Stone, P., **McDonald, M.**, Cohen, B. (2024). [Home care clinicians' perspectives on advance care planning for patients at risk for becoming incapacitated with no evident advance directives or surrogates.](#) *Journal of Hospice & Palliative Nursing*. 26(2), 74-81.

Lee, S., Nolan, A., Guerin, J., Koons, B., Matura, L.A., Jurgens, C.Y., Dickson, V.V., **Riegel, B.** (2024). [The symptom perception processes of monitoring, awareness, and evaluation in patients with heart failure: A qualitative descriptive study.](#) *European Journal of Cardiovascular Nursing*. 23(5), 521-531.

Levy, S., Hirschman, K., Matus, A., Thomas, G., **Riegel, B.**, Ashare, R. (2024, E-published ahead of print) [Do coping style and future time perspective relate to surrogate decision-making preparedness? A cross-sectional analysis of heart failure caregivers.](#) *Aging and Mental Health*. PMID: 39511982.

Locatelli, G., Matus, A., Lin, C.Y., Vellone, E., **Riegel, B.** (2024) [Symptom perception in adults with chronic physical disease: A systematic review of insular impairments.](#) *Heart & Lung*. 10(70), 122-140.

Luth, E.A., Brennan, C., Hurley, S.L., Phongtankuel, V., Prigerson, H.G., **Ryvicker, M.**, Shao, H., Zhang, Y. (2024). [Hospice readmission, hospitalization, and hospital death among patients discharged alive from hospice.](#) *JAMA Network Open*. 7(5), e2411520-e2411520.

McDarby, M., **Russell, D., King, L.**, Kozlov, E., Luth, E. A. (2024). [Knowledge gaps in end-of-life family caregiving for persons living with dementia: A study of hospice clinician perspectives.](#) *American Journal of Hospice and Palliative Care*. 41(3), 270-280.

Oh, S., Sang, E., Stawnychy, M.A., Garren, P., You, S.B., O'Connor, M., Hirschman, K.B., Hodgson, N., Cranston, T., Jablonski, J., O'Brien, K., Newcomb, M., Spahr, M., **Bowles, K.H.** (2024). [Application of a human factors and systems engineering approach to explore care transitions of sepsis survivors from hospital to home health care.](#) *Human Factors*. 66(11), 2468-2484.

Phongtankuel, V., Czaja, S., Park, T., **Dignam, R.**, Adelman, R., **Shah, S.**, **Vasquez, F.**, Reid, M.C. (2024). [Assessing the feasibility, acceptability, and preliminary efficacy of a novel symptom management care delivery intervention for caregivers receiving home hospice care: The i-home protocol.](#) Contemporary Clinical Trials. 136, 107389.

Reckrey, J.M., **Russell, D.**, Fong, M.C., **Burgdorf, J.G.**, Franzosa, E.C., Travers, J.L., Ornstein, K.A. (2024). [Home care worker continuity in home-based long-term care: Associated factors and relationships with client health and well-being.](#) Innovation in Aging. 8(3).

Riegel, B., Barbaranelli, C., Quinn, R., Matus, A., Stawnychy, M.A., Hirschman, K.B. (2024). [Psychometric analysis of the health self-care neglect scale.](#) Journal of Cardiovascular Nursing. 39(3), 288-295.

Riegel, B., Barbaranelli, C., Stawnychy, M.A., Matus, A., Hirschman, K.B. (2024). [Does self-care improve coping or does coping improve self-care? A structural equation modeling study.](#) Applied Nursing Research. 78, 151810.

Riegel, B., De Maria, M., Barbaranelli, C., Luciani, M., Ausili, D., Dickson, V.V., Jaarsma, T., Matarese, M., Stromberg, A., Vellone, E. (2024, E-published ahead of print). [Measuring self-care: A description of the family of disease-specific and generic instruments based on the theory of self-care of chronic illness.](#) Journal of Cardiovascular Nursing.

Riegel, B., Page, S.D., Aryal, S., Lee, C.S., Belfiglio, A., Freedland, K.E., Stromberg, A., Vellone, E., Westland, H., van Rijn, M.M., Pettersson, S., Wiebe, D.J., Jaarsma, T. (2024). [Symptom characteristics, perceived causal attributions, and contextual factors influencing self-care behaviors: An ecological daily assessment study of adults with chronic illness.](#) Patient Education and Counseling. 123, 108227-108227.

Riegel, B., Quinn, R., Hirschman, K.B., Thomas, G., Ashare, R., Stawnychy, M.A., **Bowles, K.H.**, Aryal, S., Wald, J.W. (2024). [Health coaching improves outcomes of informal caregivers of adults with chronic heart failure: A randomized controlled trial.](#) Circulation: Heart Failure. 17(7), e011475.

Ryvicker, M., **Barrón, Y.**, Song, J., **Zolnoori, M.**, **Shah, S.**, **Burgdorf, J.G.**, Noble, J.M., **Topaz, M.** (2024). [Using natural language processing to identify home health care patients at risk for diagnosis of Alzheimer's disease and related dementias.](#) Journal of Applied Gerontology. 43(10):1461-1472.

Sang, E., Quinn, R., Stawnychy, M.A., Song, J., Hirschman, K.B., You, S.B., Pitcher, K.S., Hodgson, N.A., Garren, P., O'Connor, M., Oh, S., **Bowles, K.H.** (2024). [Organizational readiness for change towards implementing a sepsis survivor hospital to home transition-in-care protocol.](#) Frontiers in Health Services. 09(4),1436375

Scharp, D., Hobensack, M., **Davoudi, A.**, **Topaz, M.** (2024). [Natural language processing applied to clinical documentation in post-acute care settings: A scoping review.](#) Journal of the American Medical Directors Association. 25(1), 69-83.

Schulman-Green, D., David, D., Moreines, L.T., Boafu, J., Franzosa, E., Kim, P., **McDonald, M.V.**, Brody, A.A., Aldridge, M.D. (2024). [*Towards a crisis management playbook: Hospice and palliative team members' views amid covid-19.*](#) Journal of Pain and Symptom Management. 68(6), 573-582.

Scroggins, J.K., Hulchafo, I.I., **Topaz, M.**, Cato, K., Barcelona, V. (2024). [*Addressing bias in preterm birth research: The role of advanced imputation techniques for missing race and ethnicity in perinatal health data.*](#) Annals of Epidemiology. 94, 120-126.

Scroggins, J.K., **Topaz, M.**, Song, J., Zolnoori, M. (2024, E-published ahead of print). [*Does synthetic data augmentation improve the performances of machine learning classifiers for identifying health problems in patient-nurse verbal communications in home healthcare settings?*](#) Journal of Nursing Scholarship. PMID: 38961517

Sheldon, K.G., **Bowles, K.H.**, Sage, C., Stanley, J., Luth, E.A. (2024, E-published ahead of print). [*Making community-based palliative care eligibility determinations: Palliative care team member perspectives on access to information and algorithm use.*](#) American Journal of Hospice & Palliative Medicine. PMID: 39560634.

Smith, J. M., **Burgdorf, J.G.**, Riser, T. J., **Ryvicker, M.** (2024, E-published ahead of print). [*Skilled home healthcare utilization and outcomes for older adults with dementia: A scoping review.*](#) Journal of the American Geriatrics Society. PMID: 39355968.

Song, J., Ramlogan, L., **Vergez, S.**, **Davoudi, A.**, **Sridharan, S.**, Cho, H., Stanley, J., **McDonald, M.V.**, **Bowles, K. H.**, Shang, J., Stone, P. W., **Topaz, M.** (2024; E-published ahead of print). [*The paradox of choice in palliative care decision-making in managed long-term care: A qualitative study.*](#) Home Health Care Management & Practice.

Sterling, M.R., Espinosa, C.G., Spertus, D., Shum, M., **McDonald, M.V.**, **Ryvicker, M.B.**, **Barrón, Y.**, Tobin, J.N., Kern, L.M., Safford, M.M., Banerjee, S., Goyal, P., Ringel, J.B., Rajan, M., Arbaje, A.I., Jones, C.D., Dodson, J.A., Cené, C., **Bowles, K.H.** (2024). [*Improving TRansitions ANd outcomeS for heart FailurE patients in home health CaRe \(I-TRANSFER-HF\): a type 1 hybrid effectiveness-implementation trial: study protocol.*](#) BMC Health Services Research. 24(1), Article Number: 1160

Topaz, M., **Davoudi, A.**, **Evans, L.**, **Sridharan, S.**, Song, J., Chae, S., **Barrón, Y.**, Hobensack, M., Scharp, D., Cato, K., Collins, S. R., **Kapela, P.**, Xu, Z., Gupta, P., Zhang, Z., **McDonald, M.V.**, **Bowles, K.** (2024, E-published ahead of print). [*Building a time-series model to predict hospitalization risks in home healthcare: Insights into development, accuracy, and fairness.*](#) Journal of the American Medical Director's Association. 26(2), 105417.

Xu Z., **Evans L.**, Song J., Chae, S., **Davoudi, A.**, **Bowles, K.H.**, **McDonald, M.V.**, **Topaz, M.** (2024). [*Exploring home healthcare clinicians' needs for using clinical decision support systems for early risk warning.*](#) Journal of the American Informatics Association. 31(11), 2641-2650.

You, S.B., Stawnychy, M.A., Cacchione, P.Z., **Bowles, K.H.** (2024). [Using the outcome and assessment information set to measure patient health status in research: A systematic review.](#) Journal of the American Medical Directors Association. 25(8), 105044.

Yu, D.S., Qiu, C., Li, P.W.C., Lau, J., **Riegel, B.** (2024). [Effects of dyadic care interventions for heart failure on patients' and caregivers' outcomes: A systematic review, meta-analysis and meta-regression.](#) International Journal of Nursing Studies. 157, 104829.

Zolnoori, M., **Sridharan, S.**, Zolnour, A., **Vergez, S.**, **McDonald, M. V.**, Kostic, Z., **Bowles, K. H.**, **Topaz, M.** (2024). [Utilizing patient-nurse verbal communication in building risk identification models: The missing critical data stream in home healthcare.](#) Journal of the American Medical Informatics Association. 31(2), 435-444.

Zolnoori, M., Vergez, S., Xu, Z., Esmaeili, E., Zolnour, A., Anne Briggs, K., Scroggins, J.K., Hosseini Ebrahimabad, S.F., Noble, J.M., **Topaz, M.**, Bakken, S., **Bowles, K.H.**, **Spens, I.**, **Onorato, N.**, **Sridharan, S.**, **McDonald, M.V.** (2024) [Decoding disparities: evaluating automatic speech recognition system performance in transcribing Black and White patient verbal communication with nurses in home healthcare.](#) JAMIA Open. 2024 Dec 10;7(4). PMID: 39659993.

Zolnoori, M., Zolnour, A., **Vergez, S.**, **Sridharan, S.**, **Spens, I.**, **Topaz, M.**, Noble, J. M., Bakken, S., Hirschberg, J., **Bowles, K.**, **Onorato, N.**, **McDonald, M.V.** (2024, E-published ahead of print). [Beyond electronic health record data: Leveraging natural language processing and machine learning to uncover cognitive insights from patient-nurse verbal communications.](#) Journal of the American Medical Informatics Association. PMID: 39667364.

Submitted Peer-Reviewed Manuscripts Currently Under Review

Bowles, K.H., Stawnychy, M., O'Connor, M., Hodgson, N., Mikkelsen, M., Sang, E., You, S.B., Pitcher, K., Song, J., Garren, P., Newman, B., Weiss, C., **Ryvicker, M.**, **Barron, Y.**, Deb, P., Hirschman, KH. (2025). *Determinants impacting the implementation of I-TRANSFER, a multi-site transition in care intervention for sepsis survivors: CFIR Guided Qualitative analysis of the needs assessment phase.* Annals of Internal Medicine. Under review.

Burgdorf, J.G., Amjad, H., **Barron, Y.**, **Ryvicker, M.** (2024). *Undocumented Dementia Diagnosis during Skilled Home Health Care: Prevalence and Impacts.* Under review.

Burgdorf, J.G., Smiley, A., **Barron, Y.**, Goodman, J., **McDonald, M.V.** (2024). *Social Work during Medicare Skilled Home Health Care: Prevalence and Determinants.* Under review.

Burgdorf, J.G., Wolff, J.L., **Barron, Y.**, Amjad H. (2024). *Dementia Severity Associated with Unmet Caregiving Needs during Skilled Home Health Care.* Under review.

Burgdorf, J.G., Wolff, J.L., **Barron, Y.**, Amjad, H. (2024). *Family Caregiver Availability and Capacity Contribute to Home Health Service Types for Patients with Dementia.* Under review.

Burgdorf, J.G., Freedman, V.A., Wolff, J.L. (2024). *A Look at Caregivers for Community-Living Persons with Dementia: Implications for the GUIDE Model*. Under review.

Kim, P.S., **McDonald, M.V.**, Boafo, J., Moreines, L.T., Schulman-Green, D., David, D., Brody, A., Aldridge, M., Franzosa, E. *Home care workers' role in supporting hospice care: An integrated multiple methods analysis*. Under review.

Min, S.H., Song, J., **Evans, L. Bowles, K., McDonald, M.V.**, Chae, S., **Sridharan, S., Barrón, Y., Topaz, M.** *Non-linear Relationship Between Vital Signs and Hospitalization/ED Visits Among Older Home Healthcare Patients and Critical Vital Sign Cut-Off for Adverse Outcomes: Application of Generalized Additive Model*. Under Review.

Murali, K., Gogineni, S., Bullock, K., **McDonald, M.**, Sadarangani, T., Schulman-Green, D., Brody, A. *Interventions and predictors of transition to hospice for people living with dementia: An integrative review*. Under review.

Sang, E., Hirschman, KH., Stawnychy, M., You, SB., Pitcher, KS., O'Connor, M., Oh, S., Song, J., Garren, P., Newman, BH., **Bowles, K.H.** *Patient-level Barriers, Related Facilitators, and Proposed Strategies for Timely Home Health Care Nursing Visits and Outpatient Appointments: Perspectives from Healthcare System and Home Health Care Informants*. Patient Education and Counseling. Journal of the American Geriatrics Society.

Song, J., Beigi, H., **Davoudi, A.**, Moon, R., **McDonald, M.V.**, Sridharan, S., Stanley, J., **Bowles, K.**, Shang, J., Stone, P., **Topaz, M.** (2024) *Leveraging Patient and Their Surrogate Caregiver Communication with Clinicians to Predict Palliative Care Decisions: A Speech Processing Study*. Under Review.

Sun, C., Hirschman, K.H., Matus, A., Stawnychy, M., Goba, M., Thomas, G., Ashare, R., **Bowles, K.H., Reigel, B.** *Cost Effectiveness of Virtual Health Coaching for Caregivers of Heart Failure Patients: Results from a Randomized Controlled Trial*. Under Review.

Xu, Z., Scharp, D., Hobensek, M., Ye, J., Zou, J., Ding, S., Shang, J., **Topaz, M.** *Machine learning-based infection diagnostic and prognostic models in post-acute care settings: A systematic review*. Journal of the American Medical Informatics Association. In revision.

You, S.B., Stawnychy, M., Hirschman, K.B., Song, J., Sang, E., Pitcher, K., Garren, P., Oh, S., O'Connor, M., **Bowles, K.H.** *Qualitative Study of the of the Context of Health Information Technology in Sepsis Transitions in Care: Facilitators, Barriers, and Strategies for Improvement*. Under Review.

Honors and Awards

Among 1,555 nurse authors, Kathy Bowles was named the most prolific first author nurse in nursing informatics in the world. Max Topaz was named the third most prolific.

<p>Center for Home Care Policy & Research at</p> 	<p>Peer-Reviewed Publications</p> <p>January 2024 – January 2025</p>
<p>(Alphabetic order by first author)</p>	<p>Authors in bold are Research Center staff</p>

Kathy Bowles will be inducted into the New York Academy of Medicine in December 2024 and was elected to the National Academy of Medicine in October 2024 (Induction October 2025).

Margaret McDonald was one of just 32 healthcare leaders selected for McKnight’s Pinnacle Award, which is granted to “outstanding sector veterans, who are being recognized for driving change, setting new standards and inspiring others for at least the last 20 years.” She will be honored with the *Thought Leader Award* at a gala awards ceremony in March 2025.

Announcements

The new ICD-10 code for Encounter for Sepsis Aftercare was announced for release October 2024. Research findings from the Center supported the need for the code. Kathy Bowles presented a webinar on the new ICD-10 code on October 30 for the National Sepsis Alliance at their annual summit.

Interviews & Profiles of the VNSNY Research Center and its Staff & Projects

Gantz, Sarah. (2024) [Home-care nurses often have no idea their patients were hospitalized for sepsis. Penn Nurses Want to Change That.](#) The Philadelphia Inquirer.

- [MSN](#)
- [NewsBreak](#)

Hewitt, Renee. (2024) [New ICD Code for Sepsis Survivors to Transform Post-Acute Care.](#) Daily Nurse.

Carbajal, Erica. (2024) [CDC adds diagnostic code for sepsis survivors: 4 notes.](#) Becker’s Hospital Review.

Martin, Audrie. (2024) [VNS Health Research Leads To New Diagnostic Code, Aiding Post-Acute Care Providers.](#) Home Health Care News.

VNS Health TODAY. (2024) [CDC Adds New Code for Sepsis Aftercare Based on VNS Health Research.](#) VNS Health TODAY.