

COURAGE KENNY RESEARCH CENTER

Fall 2023

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OCTOBER 13, 2023

Welcome to the Fall edition of the Courage Kenny Research Center newsletter! We aim to share news about what is happening with some of our research studies and our ongoing collaborations with Courage Kenny Rehabilitation Institute clinicians, leaders, and staff with you. Read on for selected highlights of our new research therapists, a newly-initiated project, current studies, and dissemination.

Top Stories in This Issue



Research Therapist position approved for 2024

As part of our ongoing strategy to integrate research with clinical practice, we have collaborated with CKRI managers to continue our Research Therapist appointments, which provide opportunities for CKRI physical, occupational, and speech therapists to work alongside CK Research staff as we conduct rehabilitation research. This collaboration allows us to continue to learn from our clinical teams' considerable experience and expertise to ensure our efforts are focused on needs that are clinical, relevant, and implementable. Our Research Therapists have .2 of their FTE dedicated to research so that they can work in the CK Research Center at Abbott Northwestern one day a week.

Alisa Kocian (OT) and Andrew Boldt (PT) were selected as our Research Therapists in 2022, followed by Carolyn Holm (PT) and Natalie Becker (SLP) in 2023. Each has contributed meaningfully to our research activities, including recruiting, screening, and consenting eligible participants into research studies; collecting data through a variety of sources, such as surveys, interviews, behavioral testing, or wearable sensors; conducting chart reviews; entering data into databases; summarizing current research literature; or sharing results in presentations, publications, and internal best practice documentation. We cannot overstate how much that work has meant not just to our overall productivity at the CK Research Center, but also to the quality of that work. Our Research Therapists have also consistently shared that having this time dedicated to research has reinvigorated their interest in and dedication to their careers. We are thrilled that we can continue this partnership and look forward to working alongside our 2024 Research Therapists.

For the 2024 application cycle, interested therapists should submit their application materials first to their managers by Friday, October 20, 2023. Managers will screen applicants to ensure eligibility, then submit applicant materials to Kristina Kath, CK Research Center Coordinator, at kristina.kath@allina.com by Tuesday, October 31. Please reach out to Kristina with any questions as well. You should have received an email with more information about applying for this position.

Validity and Reliability of the Courage-Kenny Fibrosis Grading Scale for Post - Cancer Treatment Effects in Survivors of Breast and Head and Neck Cancer

Cancer impacts 1 in 4 women and 1 in 3 men over their lifetime. While cancer treatments have improved over the past decades, these treatments can lead to lasting effects on both superficial and deep tissues. Radiation and surgery can lead to increased fibrosis in the skin, muscle, and connective tissues, impacting function. While physical and occupational therapists often assess these tissue changes subjectively, few scales are available to assess and document the impact of rehabilitation on this tissue change.



Laura Gilchrist, PT, PhD



Monica Heinen, PT



Melanie Anderson, PT



Laura Franco, PT



Jess Taylor, PT

Laura Franco, PT and Monica Heinen, PT of the Courage Kenny Cancer Rehabilitation Program developed a measure to assess cancer treatment-related fibrosis a few years ago to address this clinical need. Laura Gilchrist, PT, PhD and Maggie Weightman, PT, PhD of the Courage Kenny Research Center assisted them in refining this measure with input from internal and external experts. With the assistance of research therapist Carolyn Holm, PT and a grant from the Allina Health Foundation, this team including (Melanie Anderson, PT and Jessica Taylor, PT) is now testing the reliability and validity of the Courage Kenny Fibrosis Grading Scale in persons who have been treated for breast or head and neck cancer. We hope that this new measure will soon be available to implement in clinical practice to assist therapists in their assessment and documentation for this growing population.

Research Meets Practice

On September 19, Katy O'Brien, PhD, CCC-SLP, introduced CKRI therapists to the Rehabilitation Treatment Specification System (RTSS). This system was developed to better understand what is working and not working in providing rehabilitative treatments. Courage Kenny Research Center will continue to offering these talks in 2024.



Katy O'Brien, PhD, CCC-SLP

If you weren't able to join us in September, you can view the recording by following the link below.

[Research Meets Practice: Rehab Treatment Specification](#)

Additional supporting resources:

[Manual for Rehabilitation Treatment Specification - ACRM](#)

Upcoming:

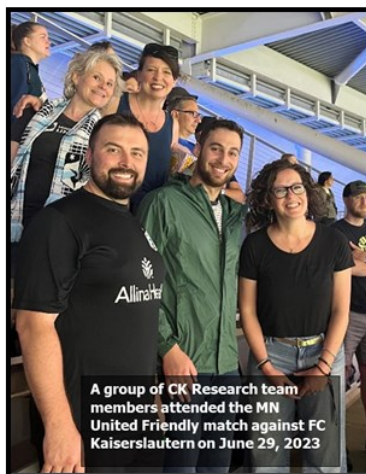
Tuesday, November 14, 2023 12:05-12:55

Dual-task Assessment in the Neurologic Population.

Presented by Maggie Weightman, PT, PhD and Carolyn Holm, PT, DPT.

Objectives:

Review evidence for the use of dual-task outcome measures in neurorehabilitation practice. Identify ways to incorporate dual-task testing in clinical settings.



A look at 2023 to Date

Two CKRC researchers recently received grant awards from the Spinal Cord Injury and Traumatic Brain Injury Research Grant Program administered by the Minnesota Office of Higher Education. Work is underway to get these projects initiated in 2023-2024.

Reading after Traumatic Brain Injury

(PI: Katy O'Brien, PhD, CCC-SLP)

Many people with TBI report that reading is no longer as enjoyable as it was before their injury. This line of research is examining both cognitive and visual factors that may underlie changes to reading from TBI, with the goal of improving rehabilitative treatments that will support school, work, community, and leisure activities.

Beyond Performance: Characterizing Cognitive Effort after Traumatic Brain Injury

(PI: Natalie V. Covington, PhD CCC-SLP)

Increased mental effort is often reported by people with TBI as a significant barrier to doing as much as they used to do before their injury. Right now, we don't have objective tools for rehabilitation therapists to measure and document changes in mental effort, which makes it hard to know whether someone's experience of elevated effort is improving or if treatments are helping. The goal of our project is to demonstrate that we can measure effort objectively and precisely using a physiological method called pupillometry and identify how effort has changed as a result of brain injury.

2023 Publications and Presentations

Publications year-to-date:

Radomski MV, Anheluk M, Carroll GL, Kath K, Kreiger R, Zola J. (2023). Feasibility of a Group-Based Purpose Renewal Intervention for Cancer Survivors Via Zoom. *American Journal of Occupational Therapy*, 32(2S), 867-882.

Kemp AM, Wallace T, **O'Brien KH.** (2023). Reconceptualizing recovery after concussion: A phenomenological exploration of college student experiences. *American Journal of Speech-Language Pathology*, 32(2S), 867-882.

Pei Y, Kemp AM, **O'Brien KH.** (2023). A systematic review and meta-analysis of student perspectives and outcomes following return to learn after concussion. *Journal of School Health*, 93(7), 594-620.

Fino PC, **Michielutti P**, Pelo R, Parrington L, Dibble LE, Hoppes CW, Lester M, **Weightman MM**, King LA. (2023). A hybrid assessment of clinical mobility test items for evaluating individuals with mild traumatic brain injury. *J Neurol Phys Ther.* Apr 1;47(2):84-90.

2023 Presentations and Publications (continued)

Publications year-to-date (continued):

Pei Y, **O'Brien KH**. (2023). Development and Initial Validation of the Sources of Reading Self Efficacy Scale for College and University Students (SOURCES-C). *Journal of Research in Reading*, 46(3), 225-246.

O'Brien KH, Wallace T, Kemp AM, Pei Y. (2023). The SUCCESS peer mentoring program for college students with concussion: Preliminary results of a mobile technology delivered intervention. *International Journal of Environmental and Public Health*. Online ahead of print.

Kemp AM, Norton G, Neese M, Pei Y. **O'Brien KH**. (2023). A theory-based exploration of psychosocial factors influencing concussion health seeking intentions in college students. *Journal of American College Health*. Online ahead of print.

O'Brien KH, Pei Y, Kemp AM, Gartell R, Wallace T. (2023). Pilot testing the SUCCESS peer mentoring program for students with concussion: The role of personas in mobile technology development. *Disability and Rehabilitation: Assistive Technology*. Online ahead of print.

O'Brien KH, Wallace T, Kemp AM, Pei Y. (2023). The SUCCESS peer mentoring program for college students with concussion: Preliminary results of a mobile technology delivered intervention. *International Journal of Environmental and Public Health*. Online ahead of print.

Kemp AM, Norton G, Neese M, Pei Y. **O'Brien KH**. (2023). A theory-based exploration of psychosocial factors influencing concussion health seeking intentions in college students. *Journal of American College Health*. Online ahead of print.

Selected presentations:

Kemp A. M. & **O'Brien, K. H.** (2023, April). More than just a pamphlet: Older adults' and SLPs' perspectives on a fall prevention intervention. Implementation Science IS For All: The Power of Partnerships Conference. Virtual Conference.

Covington, NV, McCurdy, R., & Duff, M.C. (2023, March). Simultaneous Coordination of Multiple Memory Systems in Adults with Moderate-Severe Traumatic Brain Injury. International Brain Injury Association World Congress. Dublin, Ireland.

Weightman MM, Leuty L, Michielutti PG, Burtraw A, Dahling L, Richardson L, King LA. Clinical Implementation of Wearable Sensors Assessing Dual-task Motor Function in Individuals with mTBI. Abstract for Poster Presentation accepted for APTA Neurology Section Combined Sections Meeting, San Diego 24 February 2023. (Lynnette Leuty and Laura Richardson presented).

Courage Kenny Research Center Staff

Anna Schulte, MPH - Senior Research Specialist

Alisa Kocian, MA, OTR/L - Research Therapist

Carolyn Holm, PT, DPT - Research Therapist

Katy O'Brien, PhD, CCC-SLP - Senior Scientific Advisor

Kristina Kath, BS - Research Specialist

Laura Gilchrist, PT, PhD - Rehabilitation Scientist, St. Catherine University

Margaret M. (Maggie) Weightman, PT, PhD - Senior Scientific Advisor, Physical Therapist

Mary Vining Radomski, PhD, OTR/L - Senior Scientific Advisor

Natalie Becker, MS, CCC-SLP - Research Therapist

Natalie Covington, PhD, CCC-SLP - Rehabilitation Scientist, University of Minnesota

Ned Tervola, MA, LAT, ATC - Project Manager

Sarah Pederson, MBA, MA - Director, Clinical Research



Contact Us:



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Mission:

Our mission is to conduct innovative, relevant clinical research that advances the field and improves rehabilitative care provided to people served by Courage Kenny Rehabilitation Institute and Allina Health.