

2019 was another busy year for CBIRT. As we welcome the new year we'd like to take this opportunity to highlight some of our 2019 accomplishments.

Research Update

Ongoing Projects

[TIPS | Traumatic Brain Injury Positive Strategies](#)

Traumatic Brain Injury Positive Strategies (TIPS) is an innovative project to develop a web-based training and information resource for parents of children and youth with brain injuries. The project is a collaboration between Eugene-based Assistech Systems, the University of Oregon's Center on Brain Injury Research and Training (CBIRT), and the Cincinnati Children's Hospital and Medical Center (CCHMC).

Status: TIPS was evaluated with 70 parents of children with TBI. Preliminary analysis shows that TIPS was effective in improving parent knowledge about TBI. Final analysis will be completed in 2020.

[TOTS | Enhancing Parenting Skills: Application of a Web-based Three-Tiered Model](#)

During this 5-year project, the University of Oregon and the Cincinnati Children's Hospital and Medical Center, in partnership with University Centers for Excellence in Developmental Disabilities (UCEDDs) in Oregon and Ohio and other key stakeholders will develop and evaluate an intervention to reduce challenging behavior in young children with intellectual and developmental disabilities.

Status: We are currently in the development stage and plan to conduct a pilot in Spring 2020.

TRACK | Tools for Reading to Acquire Content Knowledge

The goal of the TRACK study is to develop and evaluate usability and feasibility of a prototype web-based application that will help students with neurocognitive disabilities reach their academic goals in middle and high school.

Status: We have developed a prototype with extensive input from teachers, teens, and parents. The usability and feasibility for this prototype was evaluated in a sample of teens with neurocognitive disabilities. We are currently planning a project to take the prototype to the next stage for evaluation and dissemination.

[Staff TBI Skill Builder](#)

Staff TBI Skill Builder is a 14-module, on-line training program designed for frontline staff new to working with adults with brain injury across a range of settings (e.g., residential support programs, day programs). Skill Builder can also be used as a refresher course for staff with more experience working with this population.

Status: We conducted a non-experimental, within-subjects evaluation of Skill Builder among 69 paraprofessionals and professionals serving adults with moderate–severe TBI across a range of settings. The results show significant improvements in knowledge and knowledge application associated with using the program. Participants’ self-efficacy ratings did not change, but we found significant improvements in self-reports of using skills taught in the program and overall maintenance of skill use and effectiveness from posttest to follow up. Participants were highly satisfied with program, indicating they would recommend it to other staff.

New Research Funded in 2019

[Return to School \(RTS\)](#)

Although hospitals treat children and adolescents with TBI in their initial course of recovery, it is ultimately the school system that serves as the long-term provider of services to these students.

The goal of this Centers for Disease Control funded project is to compare the health, academic and social outcomes of children/youth with TBI who are served by an established Return to School (RTS) program for students with traumatic brain injury (TBI) to outcomes of children/youth in a comparison site.

Status: We are in the planning phase of this research and will begin evaluation in 2020.

[Physiological Responses to Natural Indoor Animation](#)

This research examines whether naturally animated indoor environments can be designed to improve health and cognitive function through interacting with brain states to reduce physiological and psychological stress. The researchers expect that natural animations will result in significant psychological and physiological benefits, such as reduced physiological stress, increased focused attention, and increased perceived well-being.

Status: Following our planning and project development stage, we are beginning our data-collection in 2020.

[B-JUST | Brain Injury & Juvenile Services Training](#)

CBIRT faculty, including Ann Glang and Laurie Powell, are working with Deanne Unruh from the University of Oregon College of Education to identify training needs for juvenile corrections personnel related to brain injury. Research has illustrated that youth with TBI in juvenile corrections are not receiving the support they need to achieve positive outcomes, possibly because most staff in juvenile correction facilities lack the knowledge and skills, they need to adequately support these youth. Many of these personnel have had very little professional development relevant to youth with TBI.

Status: We are in the planning phase. The study will begin Winter 2020.

Research Activities with Partner Institutions

Ann Glang and Dane Ramshaw from the College of Education are working on several projects in the area of sports concussion management. This work includes development and evaluation of a coach education site for a project funded by the Pac-12 Student-Athlete Health and Well-Being Grant Program. In addition, they are working on an intervention study funded by the National Center for Injury Prevention, Centers for Disease Control. This project is studying the effects of pre-Game safety huddles (<https://concussionspace.org/>) on sportsmanship and playing with concussive symptoms.

Status: Both studies are currently in the evaluation phase.

Non-Research Projects

TBI State Partnership | Mentor State Grant

Oregon was one of 10 states awarded a TBI State Partnership Mentor Grant—a cooperative agreement under the Administration for Community Living's (ACL) Traumatic Brain Injury (TBI) State Partnership Program.

CBIRT serves as the lead state agency for this three-year grant. The goal of the grant program is to create and strengthen a system of services and supports that maximizes the independence, well-being, and health of people with traumatic brain injuries across the lifespan, their family members, and their support networks.

TBI Education Team

The TBI Team is funded by a contract with the Oregon Department of Education to support students age 0–21 with TBI. CBIRT leads the TBI Team by working closely with the Regional Programs for Low Incidence Disabilities to provide statewide leadership, training and consultation, a website, library services, and other supports as requested. During the 2019 year we successfully orchestrated;

- 9 webinars totaling 464 attendees
- 2 in-person trainings with 58 attendees
- 1 Facebook live event
- 52 new members
- 141 total team members
- 1,379 data points collected

Publications

Peer Reviewed

Nagele, D., Hooper, S., Hildebrant, K, McCart, M, Detter, J. & Glang, A. (in press). Under-Identification of Students with Long Term Disability from Moderate to Severe TBI. *Physical Disabilities: Education and Related Services*.

Glang A., McCart, M., Slocumb, J., Gau, J., Davies, S., Gomez, D. & Beck, L. (2019). Preliminary efficacy of online TBI professional development for educators: an exploratory

randomized, clinical trial. *Journal of Head Trauma and Rehabilitation*, 34(2):65-76.
<https://www.ncbi.nlm.nih.gov/pubmed/30499929>

McCart, M., Glang, A., Slocumb, J. Gau, J. Beck, L. & Gomez, D. (2019). A Quasi-experimental study examining the effects of online Traumatic Brain Injury professional development on educator knowledge, application, and efficacy in a practitioner setting. *Disability and Rehabilitation*. DOI: 10.1080/09638288.2019.1578423
<https://www.ncbi.nlm.nih.gov/pubmed/30978108>

Powell, L.E., Gomez, D., Gau, J., Glang, A, Perez, A., Slocumb, J., Beck., L., and Dawson, M. (in press). A survey of the training experiences and needs of paraprofessionals serving adults with brain injury. *Brain Injury*.
<https://www.tandfonline.com/doi/full/10.1080/02699052.2019.1686773>

National Report

Ontario Neurotrauma Foundation (ONF) (2018-19). Ann Glang served as a member of the working group to refine the [ONF Pediatric Concussion Guidelines](#).

Dissemination/Media Activities

Jefferson Public Radio

[Curious: Teaching Students Following A Concussion](#)

CBIRT Director Ann Glang and Project Coordinator Melissa McCart on Curious: Research Meets Radio

Full Pre Frontal Podcast

[Episode 74: The Forgotten Injury](#)

Ann Glang

The Conversation

[Hidden epidemic? Childhood concussion may lead to long term cognitive and behavioural problems](#)

Ann Glang and colleagues Mark Linden and Audrey McKinlay

Research Helps Kids Get Their Lives Back After Concussion. MedicalExpress.com article. (published June 3rd, 2019). <https://medicalxpress.com/news/2019-06-kids-concussion.html?fbclid=IwAR3Qct8qWniK7VHFI68N9n9xkYWndhsOi-4oA512Fh2Oa2PKrsd-NteFWel>.

Melissa McCart

Schools Struggle with Concussion “Return to Learn” Strategies. Hillsboro Tribune article (published January 14, 2019). <https://pamplinmedia.com/ht/117-hillsboro-tribune-news/416498-318649-schools-struggle-with-concussion-return-to-learn-strategies>

Melissa McCart

Special Education Connection, “Concussions: Focus on training, response to address student safety”. Interview published October 14, 2019.

Melissa McCart

Grant could make UO concussion program a national model. Around the O article. (Published November 19th, 2019)

Policy and Legislative Activities

Credible History Advocacy and Oregon Administrative Rules (OARs) Change

Requiring medical documentation of TBI for students to be eligible for special education services can be a significant barrier to effective identification and service delivery. The Oregon Department of Education, the TBI Stakeholder Group and Melissa McCart recognize that the inability to obtain medical documentation for students moving toward special education eligibility has led to mis-identification and under-identification of children with TBI in the state of Oregon. Melissa is leading the group to create an alternative access modality within OARs to address this issue.

Melissa McCart

Return to School Legislation

Currently, in Oregon, there is no Return to School following concussion legislation. Two representatives from CBIRT have been working with representatives from the Oregon Legislature and stakeholder groups to create an amended statute requiring all schools to have protocols supporting students who are returning to academics after being diagnosed with a brain injury.

Melissa McCart and David Kracke

Thank you to our many partners! We look forward to continuing our work together in 2020.