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services, transportation) to address the evolving needs of this population. The roles and strategies of brain injury associations for connecting persons with TBI to these community-based services were described.

Conclusions: These findings will contribute to inform the co-development of a concerted action plan between TBI associations and other key stakeholders involved in supporting transitions post-TBI.

Author(s) Disclosures: The authors have no conflict of interest to declare.

Key Words: Transitions, Community-Based Services, Traumatic Brain Injury Brain Injury Associations, Caregivers

Research Poster 1709936

Storytelling in Female Veterans Survivors of Traumatic Brain Injury: A Phenomenological Analysis

Joyce Chung (VA Palo Alto), Nytzia Licona, Jouk Alexandra, Jennifer Terry, Odette Harris

Research Objectives: To improve understanding of the unique experience of female veterans’ post-traumatic brain injury (TBI) utilizing the power of storytelling.

Design: Qualitative phenomenological design.

Setting: TBI/Polytrauma Rehabilitation System of Care of the Veterans Affairs Palo Alto Health Care System (VAPAHCS).

Participants: 10 female veterans participating in a storytelling workshop.

Interventions: No known interventions.

Main Outcome Measures: Retrospective chart review of each participant’s demographic and injury information. Using storytelling an arts-based research method approach, participants’ shared stories related to their injury, and their recovery experiences related to their TBI. Qualitative analysis for main themes and associated subthemes was completed using a constructivist grounded theory approach.

Results: Ten powerful visual stories focused on life pre and post TBI; detailing how their injuries occurred, describing the challenges of their recovery, and sharing thoughts on their life and future. Three content themes emerged from the thematic analysis: (1) psychological and emotional impacts of TBI, (2) acceptance and healing process associated with recovery, and (3) distinct individual mindsets. Negative psychological and emotional impacts identified included suicidal ideation, grief, sadness, anxiety, relationships problems, memory loss, loss of independence, and headaches. Notably, all the stories acknowledged a healing process, characterized by a sense of living meaningfully with TBI. Lastly, each story contained a distinct mindset which captured a strong sense of overcoming hardships while emphasizing determination, motivation, optimism for continued recovery, and coping with their new self.

Conclusions: A phenomenological examination adds powerfully to evidence-based research highlighting the distinct impact of TBI among female veterans. Each story uncovered nuanced and multifaceted issues that women uniquely experience in their TBI recovery. Our findings can guide future intervention on the care, support, and TBI recovery for the female population.

Author(s) Disclosures: No conflict of interest from the authors.

Key Words: Stroke, Gait, Prognostic Factors Practice Guideline, Technology

Research Poster 1709942

A Rare Case of COVID-19 Related Necrotizing Myopathy

Anish Paudel (Tower Health Reading Hospital), Christopher Reggio, Anthony Donato, Kelly Crozier

Research Objectives: To report a case of COVID-19 associated necrotizing myopathy.

Design: Case report.

Setting: Following the patient through acute hospitalization, acute rehab to outpatient therapy follow up.

Participants: A 76-year-old man with known hypogammaglobulinemia on monthly IVIG infusions who presented to the hospital with 1 week of dyspnea and myalgias. He was a former athlete who participated in daily cardiovascular workouts before admission. He was found to have COVID-19 pneumonia.

Interventions: Patient was treated with remdesivir and oral dexamethasone. He was transferred to the ICU for 9 days where he received convalescent plasma, intravenous methylprednisolone, and high flow oxygen. He did not require intubation nor sedatives.

Main Outcome Measures: Following transfer to the floor, he reported new-onset muscle weakness. Physical examination revealed symmetrical proximal upper and lower extremity weakness with elevated CK at 3665 IU/L. Patient was treated with remdesivir and oral dexamethasone. He was transferred to the ICU for 9 days where he received convalescent plasma, intravenous methylprednisolone, and high flow oxygen. He did not require intubation nor sedatives.

Conclusions: Standardized use of advanced rehabilitation technology allowed for similar stepping repetitions between groups, although not equal walking outcomes. Interestingly, 50% of the PWP group ambulated without physical assistance, although this was not achieved until at least 3 months after stroke. A sparing of the motor pattern early in stroke recovery may have downstream effects for gait function.

Author(s) Disclosures: None.

Key Words: Stroke, Gait, Prognostic Factors Practice Guideline, Technology
Conclusions: Timely recognition of COVID-19 related myopathy may prevent serious necrotizing muscle injury.

Author(s) Disclosures: None.

Key Words: COVID-19 Infection, Myopathy, Necrotizing Myositis Steroids

Research Poster 1709948

Effects of Speed on Spatiotemporal Gluteus Maximus Activation During a Chair-Rise Following Chronic Stroke

Michelle Sawtelle (University of St. Augustine), Shih-Chiao Tseng, Jennifer Ellison

Research Objectives: To investigate gluteus maximus activation during natural and fast-speed chair-rising comparing adults post-stroke to healthy controls.

Design: Cross-sectional study design.

Setting: Post-graduate university for allied health professions.

Participants: Eleven adults (n = 11) with unilateral lower extremity weakness following chronic stroke and eleven healthy adults (n = 11) participated in this study.

Interventions: Surface electromyographic electrodes were positioned on bilateral gluteus maximus muscles to capture activation variables. Kinetic and kinematic measurements were taken to quantify chair-rise phases. Participants stood independently with arms crossed at self-selected natural and fast speeds four times each with averages used for statistical analysis.

Main Outcome Measures: Normalized root mean square (RMS) values of bilateral gluteus maximus muscle activation were measured during natural and fast-speed chair-rising. Additionally, onset of gluteus maximus activation was used to quantify neuromuscular control during chair-rising.

Results: Individuals post-stroke displayed prolonged chair-rise times compared to healthy controls during natural-speed conditions (p = .001) with no differences during fast-speeds (p = 0.124). Decreased gluteus maximus magnitudes were noted bilaterally post-stroke compared to healthy adults for both speeds (p = .007). Increased magnitudes (p < .001) and earlier onset times (p < .001) were noted during fast-speeds for both groups. No magnitude differences were noted between paretic and non-paretic extremities post-stroke (p = .846). A unique delayed onset of the paretic gluteus maximus was evident during both speed conditions (p = .029) in adults post-stroke.

Conclusions: Results indicate bilateral spatiotemporal gluteus maximus muscle activation deficits during chair-rising with improved activation during faster speeds. This study contributes evidence toward the use of high-intensity chair-rise training to improve spatiotemporal gluteus maximus muscle activation post-stroke.

Author(s) Disclosures: The authors have no conflicts of interest to declare.

Key Words: Stroke, Surface Electromyography, Neurological Rehabilitation Buttocks

Research Poster 1709952

Prevalence and Risk Factors for Intimate Partner Violence-related Brain Injury in New York

Ghazala Saleem (State University of New York at Buffalo), Mohammad Haider, John Leddy, Barry Willer, Jessica Fitzpatrick

Research Objectives: To identify the prevalence and risk factors for intimate partner violence (IPV)-related traumatic brain injury (TBI) in survivors in New York.

Design: Retrospective chart review.

Setting: Community Justice Center.

Participants: Forty IPV survivors aged 35-48 years [M 35.1; SD 13.2]; 95% female, 50% Caucasian, 42.5% African American, 7.5% refugees, and 93% with previous hypoxic injury] assessed a mean of 4.4±11 days since head trauma. Our sample showed a higher proportion of African Americans (227%) and refugees (650%) than the County’s average on race.

Interventions: Not applicable.

Main Outcome Measures: The HELPS was used to identify TBI prevalence in IPV survivors at the initial Center visit.

Results: Forty-one percent of survivors demonstrated a positive history of IPV-related TBI. Fifty-five percent reported needing an emergency room visit; 42.5% reported loss of consciousness; 45% sustained symptoms consistent with mild TBI such as headaches or fatigue. In multivariate models, after controlling for race, female sex (p=0.003) and refugee status (p=0.002) were strongly associated with the number of previous brain injuries (PBI). No other demographic variables were significantly related to the number of PBI.

Conclusions: Congruent with previous findings,1,2 our data indicated a high prevalence of IPV-related TBI (about two in five survivors) in New York. Notably, our sample comprises a higher percentage of African Americans and refugees compared to the County’s demographics. We found that being a female or a refugee increases the risk of sustaining IPV-related TBI. Though shown as high, IPV-related TBI prevalence varies among samples.3,4 Future research must determine better nationwide estimates of brain injury prevalence in the IPV population as recommended by the recent GAO4 report to improve resource allocation and clinical management.

Author(s) Disclosures: The authors declare no conflict of interest.

Key Words: Intimate Partner Violence, Brain Injury, Prevalence Rehabilitation, Female

Research Poster 1709955

The Effects of Haptic Input on Walking Balance in Individuals With Multiple Sclerosis and Controls

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Research Objectives: To examine sensorimotor control of walking with various haptic input modalities in people with multiple sclerosis (pwMS).

Design: Cross-sectional observational study.

Setting: Research gait laboratory.

Participants: Ethics approval and informed consent were obtained prior to data collection. Participants included 30 pwMS and 29 controls matched for age (±3 years) and sex. All participants were ≥ 18 years of age, and able to walk 10 m without support. Participants with conditions or injuries other than MS that could impair walking were excluded.

Interventions: Not applicable.

Main Outcome Measures: Walking without haptic input (no-touch: NT) was compared to three walking conditions with haptic input: haptic anchors (small weights on strings: HA), using a four-wheeled walker (4WW) with light touch (4WW-LT) and using a 4WW by placing weight through the handles (4WW-W). Inertial sensors (Mobility Lab, APDM) measured stride length1, gait speed2, percentage double support/stride (%DS), mediolateral trunk range of motion (ML-tROM4), and lateral step variability (LSV)5. Repeated measures ANOVA examined within- and between-group differences.

Results: Group effects showed PwMS spent significantly greater time in %DS and had more LSV compared to controls. All participants spent less time in %DS in the 4WW-W condition compared to the other forms of haptic input. Both 4WW conditions and the haptic anchors reduced ML-tROM compared to NT. LSV was reduced with 4WW-LT and 4WW-W compared to HA and NT conditions. All participants walked significantly faster using 4WW-LT compared to all conditions.

Conclusions: PwMS walked with more caution and less consistent foot placement than controls. Adding only haptic input (anchors and 4WW-LT conditions) reduced ML-tROM similar to the 4WW-W condition (haptic input + mechanical support). 4WW-LT and 4WW-W demonstrated the