Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Main Outcome Measures: The Rivermead Post-Concussion Symptoms Questionnaire evaluated self-report of concussive symptoms. Digit Span measured auditory attention. The D-KEFS Trail Making subtest measured of visual attention. Memory was evaluated using the Rey Complex Figure Test and a list-learning test. Patients varied in which list-learning test they were given during their evaluation. Each patient completed a valid and reliable measure of verbal memory: HVLT, CVLT, or NABMemory Module Test.
Results: Current analysis showed a positive correlation with self-reported memory and a delayed verbal memory($r = .57$, $p = .017$), and poor concentration with a delayed verbal memory ($r = .51$, $p = .04$). Additional results do not show any significant associations between self-report cognitive complaints and objective assessment of cognitive domains. Self-report of emotional and cognitive disturbance showed stronger correlations with each other than objective, formal testing measures.
Conclusions: Results suggest self-reported cognitive deficits do not demonstrate similar deficits on neuropsychological testing, mood changes may better explain cognitive concerns.
Author(s) Disclosures: There are no current conflicts.
Keywords: Mild Traumatic Brain Injury, Cognitive Impairment, Neuropsychology

Late Breaking Research Papers + Posters 1504482

A Survey of Older Adults' Perspectives of In-Person and Virtual Parkinson's-Specific Exercise Classes

Holly Bennett (University of Arkansas for Medical Sciences), Jennifer Vincenzo, Kellie Coleman, Chris Walter, Chris Oholendt

Research Objectives: To examine virtual exercise programming for peoples with Parkinson's Disease.

To identify feasible virtual exercise programming for peoples with Parkinson's Disease.
Design: This study will survey fitness class participants who attended the UAMS PWR!Moves Exercise Class on their attitudes, perceptions, and experiences with a Parkinson's wellness class.
Setting: The setting of this study is both at the UAMS Otteheimer Community Fitness Center and virtually through Zoom webcam platform. The UAMS Ottenheimer Community Fitness Center is a general community setting.
Participants: Participants are class participants of PWR!Moves. Subjects will have a primary diagnosis of Parkinson's Disease. Subjects over the age of 21 years old. The total number of survey participants are 23 and 9 participants for the focus group.
Interventions: PWR!Moves Group Class, a Parkinson's Foundation certified exercises course that educates participants how to create bigger movement to counteract the symptoms of PD.
Main Outcome Measures: This study utilized two validated self-reported questionnaires, the PFS-16 and PDQ-39 to report any changes the participants experienced since attending the PWR!Moves Exercise Class both in-person and virtually.
Results: Respondents who participated in both delivery methods preferred virtual classes. The majority of respondents indicated their fatigue and mental health were either unchanged or improved.
Conclusions: Participants who transitioned from an in-person to a virtual exercise program for people with Parkinson's disease felt the program was safe, effective, and improved or prevented declines in their mobility.
Author(s) Disclosures: The authors declare no relevant conflicts of interest.
Keywords: Older Adults, Health Promotion, Parkinson's Disease, COVID-19

Late Breaking Research Papers + Posters 1504481

Impact of Diabetic Neuropathy on Balance and Gait

Mohan Ganesan (University of St Augustine, San Marcos, CA), Jennifer Mai, Jade Centurion, Abigail Eberling Schnuelle, Nicole Gruhn

Research Objectives: To evaluate and compare static and dynamic balance as well as a gait in individuals with and without diabetic neuropathy.
Design: Case-control study design.
Setting: University setting.
Participants: The study included a convenience sample of 13 individuals with type 2 DM (7 males, 6 females) with a mean age of 62.77±11.9 years. Participants were grouped as neuropathy group (NG) ($n=6$) or non-neuropathy group (NNG) ($n=7$) based on 10-gram Semmes monofilament test results.
Interventions: No intervention.
Main Outcome Measures: Center of Pressure (COP) sway using a force plate in normal stance and Romberg stance, with eyes open and closed conditions. Clinically balance was assessed using the Mini-BESTest (anticipatory, reactive, sensory orientation, and dynamic gait). Gait parameters (velocity, stride, and step length) were assessed using the GAITRite.
Results: Significant condition effects were found for total displacement ($F=9.14$, $p=.006$), amplitude anterior/posterior ($F=9.01$, $p=.007$), amplitude medial/lateral ($F=10.49$, $p=.004$), area ($F=19.24$, $p<001$), velocity anterior/posterior ($F=11.12$, $p=.003$) and velocity medial/lateral (($F=13.03$, $p=.002$) for Romberg stance eyes closed condition in Neuropathy group. No significant group effect, condition effect, and interaction were found in the normal width stance. The Mini-BESTest components and gait parameters did not have any significant difference between the groups. There were no significant differences between the self-reported activity levels of the NG and NNG participants ($U=14.5$; $p=.30$). NG participants had significantly higher weight ($p=.035$) than the NNG participants.
Conclusions: This study demonstrates the importance of visual compensation for participants with neuropathy in a narrow stance as reflected through COP sway in Romberg's stance with eyes closed. Though the neuropathy group can maintain a similar level of gait and balance, when the base of support decreased, they need to rely on visual compensatory strategies. The neuropathy group had higher weights than the non-neuropathy participants even with similar activity levels. In addition to rehabilitative measures, there is a need for teaching visual compensatory strategies and weight reduction program for patients with diabetic neuropathy.
Author(s) Disclosures: None of the authors have conflicts of interest.
Keywords: Diabetes, Neuropathy, Balance, Gait, Vision

Late Breaking Research Papers + Posters 1504484

Outcomes of and Lessons Learned from Patients with Severe COVID-19 in a Long-term Acute Care Hospital

Peter Grevelding (Gaylord Hospital), Henry Hrdlicka, Stephen Holland, Lorraine Cullen, Amanda Meyer, Catherine Sabith, Darielle Cooper, Allison Greco

Research Objectives: To describe characteristics, clinical management, and outcomes of patients treated during or after acute COVID-19 phase in a long-term acute care hospital (LTACH) in the United States.
Design: A single center, retrospective analysis was conducted of patients who were treated for COVID-19-related care at a LTACH in the Northeastern United States through August 14, 2020, following discharge from a short-term acute care hospital (STACH). Patient care included typical management protocols for pulmonary conditions, neurological conditions, speech and language pathology, and functional impairments; as well as COVID-related protocols for proning, dysphagia, and facility-wide infection control measures.
Setting: Long term cute care hospital.
Participants: 117 patients treated for COVID-19 related care.
Interventions: Rehabilitation services appropriate in a LTACH setting.
Main Outcome Measures: Length of stay, Ambulatory status, ventilator weaning, modified diet status.
Results: Of 117 patients admitted during the 4.5-month/148-day study period, 108 were discharged from LTACH at the time of data cut-off. During that time, 29.9% tested positive for SARS-CoV-2 infection at admission, mean patient age was 63 years and 64.1% were male. For the 108 patients

who were discharged, the mean (SD) LTACH length of stay was 25.5 (13.0) days. Of the 48 patients who were non-ambulatory at admission, 40 (83.3%) were ambulatory at LTACH discharge. Gait changed an average of 217.4 feet from admission to discharge, a significant increase compared to the reference cohort of 146.3 feet. 93.8% (15/16) of patients being mechanically ventilated at admission were weaned from the ventilator before discharge (mean time, 11.3 days), and 74.7% (56/75) of patients with modified diet or nothing by mouth at admission were discharged on a regular diet.
Conclusions: The vast majority of patients treated at a long-term acute care hospital for severe COVID and related complications improved significantly through coordinated care and rehabilitation, including improvements in functional status, cognitive communication abilities, and pulmonary measures, indicating a possible benefit of structured rehabilitation in the post-acute phase of COVID-19.
Author(s) Disclosures: None.
Keywords: COVID-19, Retrospective Studies, Center, Rehabilitation, Human, Assessment, Outcome Healthcare

Late Breaking Research Papers + Posters 1504480

Parasympathetic predominance in Hatha-Yoga practitioners

Mohan Ganesan (University of St Augustine, San Marcos, CA), Bindu Balakrishnan, Jacob Day

Research Objectives: To evaluate and compare the frequency domain heart rate variability in individuals who practices Hatha-yoga and healthy controls.
Design: Cross-sectional study.
Setting: Regional level University setting and community wellness center.
Participants: We selected convenience sampling of 19 Hatha-Yoga practitioners and 8 healthy controls.
Interventions: No intervention.
Main Outcome Measures: Frequency domain measures of heart rate variability (HRV) including LF power (0.04 -0.15 Hz) (sympathetic influence on heart), HF power (0.15 -0.4 Hz) (parasympathetic influence on heart), and its normalized units (HF nu, LF nu), and LF/HF (sympathovagal balance).
Results: The mean duration of the Hatha-yoga practicing experience was 11.47±8 years. No significant difference between the groups in the demographics and anthropometric measures were observed. Significantly higher HF power, HF nu (Yoga 56.96±16.6; control: 36.7±13.4;p = .005), and LF/HF ratio (yoga:1.12±0.5 vs control:2.2±1.1; p = .028). No significant changes in the LF and LF nu components.
Conclusions: Hatha yoga practitioners have parasympathetic predominance compared to healthy controls. This reflects that Hatha -yoga practitioners may be less prone to stress-related co-morbidities. Further studies need to explore the association of the stress-related co-morbidity in Hatha -yoga practitioners.
Author(s) Disclosures: None of the authors have conflicts of interest. This project was approved and conducted by the University of Dubuque and funded by the Women in Science and Chlapaty Fellowship by the University of Dubuque, Iowa.
Keywords: Yoga, Hatha Yoga, Heartrate Variability, Parasympathetic, Frequency Domain

Late Breaking Research Papers + Posters 1504478

Prevalence of Elevated Injustice Appraisals in an Outpatient Neurorehabilitation Setting: Preliminary Findings

Caitlyn Arutiunov (NYU Langone Medical Center), Jed McGiffin, Joseph Rath

Research Objectives: Injustice appraisals (IAs) are beliefs reflecting the severity and irreparability of injury/disability-related loss, blame, and unfairness.1,2 Because elevated IAs are associated with poorer treatment outcomes, the objective of this study is to examine a measure assessing IAs in an outpatient rehabilitation setting to better understand the prevalence of elevated IAs in this population.1,2,3
Design: Observational survey study.
Setting: Academic medical center in a major metropolitan area.
Participants: Individuals aged 22-88 with acquired brain injury in outpatient rehabilitation.
Interventions: N/A.
Main Outcome Measures: Injustice Experiences Questionnaire (IEQ).
Results: Preliminary data for 20 participants on the prevalence of elevated IAs in a general outpatient rehabilitation setting will be analyzed and reported. Figures and tables with descriptive statistics regarding injustice appraisals will be presented across demographic and psychosocial variables.
Conclusions: Elevated IAs have been studied in several patient populations, including chronic pain, whiplash injury, TBI, orthopedic trauma, spinal cord injury, and fibromyalgia. This study is among the first to explore IAs in general neurorehabilitation outpatients and will provide a better understanding of the prevalence of elevated IAs in an outpatient rehabilitation setting. Better understanding the prevalence of elevated IAs may help clinicians more effectively identify and treat patients who may have elevated IAs, fostering more engagement in therapies and the opportunity for better treatment outcomes. Specific therapeutic approaches that address disability severity in the context of how a patient feels about the self and their situation, such as Acceptance and Commitment Therapy, have been suggested as a possibly effective therapeutic approach.
Author(s) Disclosures: No disclosures.
Keywords: Injustice Appraisal, Outpatient, Neurorehabilitation

Late Breaking Research Papers + Posters 1504483

Remote Exercise Capacity Assessment in Home-Based Telerehabilitation

Joseph Finkelstein (Icahn School of Medicine at Mount Sinai), Mackenzie Doerstling, Patricia Rocco, Herbert Karpatkin

Research Objectives: Pulmonary rehabilitation (PR) has been successfully carried out via telemedicine however initial patient assessment has been traditionally conducted in PR centers. The first step in PR is assessment of patient's exercise capacity which allows individualized prescription of safe and effective exercise program. With COVID-19 pandemics assessment of patients in PR centers has been limited resulting in significant reduction of patients undergoing life-saving PR. The goal of this pilot study was to introduce approaches for remote assessment of exercise capacity using videoconferencing platforms and provide initial usability assessment of this approach by conducing cognitive walkthrough testing.
Design: Usability was assessed by conducting cognitive walkthrough and system usability surveys (SUS).
Setting: We developed a home-based assessment system that supports remote patient evaluation necessary for prescription of a personalized exercise program tailored to individual fitness level and limitations in gait and balance of the patient under evaluation.
Participants: Overall 11 remote assessment visits were carried out by participating physical therapists (PT), exercise physiologists (EP) and patients with chronic obstructive pulmonary disease.
Interventions: The assessment included Sit-To-Stand, Timed Up and Go, Arm Lift tests and arm bike workout observed by PT via videoconferencing with real-time pulse oximetry.
Main Outcome Measures: SUS and 5-point task complexity (TC) score were the main outcomes.
Results: Patient age varied from 55 to 70 years old (mean age = 68). SUS was 65±16, 75±18, and 95±19 in patients, PT and EP correspondingly. TC score (5 = the easiest) was 4.3, 4.3 and 4.9 for patients, PT and EP correspondingly.
Conclusions: The usability inspection of the remote exercise assessment demonstrated overall high acceptance by all study participants. Our next