

ily (5.0, 2.4, 2.2, respectively), e) Filling out billing forms (4.0, 2.8, 2.8, respectively).

Conclusions: Perceptions of educational value of inpatient activities increased with PGY levels. For patient-care core competency scenarios, upper level residents and attendings' perceptions were similar. Perceptions differed more when non-patient-care related core competencies (e.g. communication skills) were involved. The educational value of core competencies besides patient care and medical knowledge should be conveyed more effectively to resident physicians on the inpatient services.

Keywords: Rehabilitation, Education, Core competency, Inpatient care.

Poster 193

Attitudes and Experiences of Healthcare Providers in International Rehabilitation Projects.

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Disclosures: S. Bassi, None.

Objective: We sought to report qualitative and quantitative data on the experience of medical professionals involved in international rehabilitation projects.

Design: Subjects completed an anonymous on-line survey. Demographic data and information regarding nature of international involvement, travel abroad, and motivations, frustrations, and experiences related to their projects were collected from the survey.

Setting: Healthcare facilities in the United States.

Participants: Medical professionals involved in international rehabilitation related projects.

Interventions: Not applicable.

Main Outcome Measures: Characteristics of respondents and satisfaction with experience.

Results: The response rate to the survey was 28% (12/43). A second electronic mailing for non-responders is planned. The mean age of respondents was 40 years (range 20-60 years); 58% female; 50% were physicians; 17% registered nurses; 17% occupational therapists; 8% physical therapists; 8% other medical professionals. Fifty-eight percent were rehabilitation professionals. Respondents had practiced a median of 8 years. The most common medical conditions dealt with were stroke, followed by cerebral palsy, hypertension, hydrocephalus, and amputations. All respondents had international experience in a developing country and 83% volunteered in a clinical setting abroad. Eighty three percent reported humanitarianism and 58% cultural competency among their motivations to be involved internationally. Eight two percent of respondents reported frustrations and adverse outcomes related to their international experience. When asked about future involvement in such projects, 100% responded that they would consider another international experience and all would recommend a similar experience to their colleagues and other healthcare professionals.

Conclusions: The unmet need of health services for persons with disabilities in developing nations is well-known. Rehabilitation professionals from the United States report personal and professional growth when serving in international settings. This approach may lead to the growth and awareness of rehabilitation medicine internationally, help to serve those in need, and also lead to personal satisfaction among rehabilitation professionals.

Keywords: Rehabilitation, World health, Medical education.

Poster 194

Biomechanical Analysis of a Novel Clinical Measure of Reaction Time.

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Disclosures: J. T. Eckner, None.

Objective: To quantify the effect of choice condition and benzodiazepine administration on clinically measured, visual-motor manual reaction time (RTclin).

Design: Double-blind, randomized two-session repeated measures observational study.

Setting: Biomechanics research laboratory at a large research university.

Participants: 13 healthy adult participants (mean age 27.1, range 19-46 years) were recruited from the university community through posted flyers and the medical school's research web site.

Interventions: Participants ingested either 1.0 mg of lorazepam or an identical placebo capsule 1.5 hours prior to each testing session.

Main Outcome Measures: RTclin was measured using the clinical reaction time apparatus: a thin cylinder that is vertically suspended by the examiner before abruptly being released for the participant to catch as quickly as possible using a pinch grip. During choice RTclin testing, the participant must decide whether or not to catch the device based on a visual cue supplied by a light emitting diode that randomly illuminates on 50% of trials. RTclin was partitioned into pre-movement time (including central processing) and finger movement time using optoelectronic and myoelectric sensors.

Results: Choice RTclin was significantly prolonged compared to simple RTclin (152 ± 18 ms vs. 206 ± 19 ms, $P < .0001$). Pre-movement time accounted for 66% of the prolongation in RTclin under choice conditions compared to simple conditions. At this dose, benzodiazepine ingestion did not significantly prolong simple RTclin compared to control (152 ± 18 ms vs. 144 ± 16 ms, respectively, $P = .206$).

Conclusions: The introduction of a forced decision during clinical reaction time assessment caused a prolongation in reaction time performance, with the majority of the prolongation attributable to pre-movement time. This supports the use of RTclin as a bedside tool capable of measuring central nervous system processing speed.

Keywords: Rehabilitation, Neurological examination, Reaction time.

Poster 195

Body Mass Index and Lipid Profiles in Adults with Cerebral Palsy: An Assessment of their Interaction with Gross Motor Function Classification.

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Disclosures: C. M. Marciniak, Allergan, Inc, Research grants; Allergan, Inc, Consulting fees or other remuneration.

Objective: To evaluate the association of dyslipidemias, overweight status, and gross motor function classification system in adults with cerebral palsy.

Design: Retrospective, chart review study.

Setting: Outpatient urban academic rehabilitation facility.

Participants: Adults with cerebral palsy who had lipid assessments as a component of routine primary care.

Interventions: Not applicable.

Main Outcome Measures: Percent of subjects defined as overweight (Basal metabolic index [BMI] >25), or with total cholesterol levels ≥ 200 or with favorable high density lipoprotein level (HDLs > 40) and Gross Motor Functional Classification level (I, II and III or IV and V).

Results: 26 subjects for whom total cholesterol was obtained over a 2-year time frame were identified. 73% were GMFC levels IV or V and no subjects were identified as GMFC I. All subjects had spasticity. 43% (n = 23) were overweight and 30% were obese. 38% had TCL ≥ 200 though 74% had HDLs ≥ 40 including two subjects with HDL levels >70. The mean BMI for GMFC group II or III was significantly greater than GMFC group IV or V (31.9 vs 23.11, respectively with $P = .04$). TCL and HDL were not found to be related to GMFC level.

Conclusions: As in the general population, adults with cerebral palsy are often overweight and about 1/3 of the adults in this sample were obese as defined by BMI. BMI was, on average, greater for those with GMFC levels of II or III. Though TCL and HDL levels were not found to be related to GMFC, in this largely non-ambulatory sample, patients often had favorable HDL levels.

Keywords: Rehabilitation, Cerebral palsy, Obesity, Dyslipidemia.

Poster 196

Calf Exercise Training in a Patient with Peripheral Arterial Disease and Intermittent Claudication: A Case Report.

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Disclosures: S. F. Figoni, None.

Patients or Programs: A 61-year-old African-American male veteran with peripheral arterial disease (PAD), Fontaine stage IIa, bilateral calf intermittent claudication pain (left > right), ankle brachial indices of 0.95 (right) and 0.55 (left). Bilateral stenoses in superficial femoral, profunda femoris, anterior and posterior tibial, peroneal, and popliteal arteries. Comorbidities and PAD risk factors: smoking (55 pack-yr), hypertension, chronic renal insufficiency, anemia, dyslipidemia. Pretraining maximal walking distance = 470 m.

Program Description: The patient performed several exercise and functional tests before and after a supervised clinic-based intervention of bilateral calf interval exercise training with a custom-built calf ergometer that isolated the gastroc-soleus muscle group. Training consisted of 4 bouts/session/leg, 3 sessions/week, for 13 weeks, with each leg trained separately.

Setting: Rehabilitation clinic, tertiary care medical center.

Results: Adherence to the intervention was 97% (38/39 sessions). After training, self-reported physical activity increased 276%, distance-related walking impairment decreased 163%, treadmill pain-free exercise time (left calf) increased 354%, treadmill maximal exercise time increased 148%, and 6-min walk distance increased 45% (from 312 to 453 m). Average work and power output per exercise bout increased linearly from weeks 1 through 13, while exercise and recovery times per bout remained relatively constant.

Discussion: Vascular rehabilitation typically consists of treadmill walking exercise. Calf training is a novel exercise intervention that may be suitable for patients who cannot walk on a treadmill safely, such as patients with severe cardiopulmonary disease, nonvascular pain, and other contraindications. Weekly work and power data can be used to track intermediate progress.

Conclusions: Exercise training of the specific calf muscle group that limited walking improved functional outcomes on questionnaire-based tests and on both treadmill and over-ground walking tests. Work and power data suggest that exercise and functional improvements would continue beyond 13 weeks of training.

Keywords: Rehabilitation, Exercise test, Exercise therapy, Peripheral vascular diseases.

Poster 197

Can Isometric Exercise Induce an Early Neurotoxin Effect in Patients with Spasticity?

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Disclosures: G. Gutman, None.

Objective: This pilot project explores an exercise method of promoting an early onset of BoNT A effects in patients with