Clinical and Research Collaboration: The Best of Both Worlds

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Objectives

• Discuss the importance of collaborative research in addressing the rehabilitation needs of individuals with TBI
• Provide an overview of collaborative research projects in brain injury

Consequences of TBI

• 5.3 million living with TBI-related disability
• 43% have a TBI-related disability after 1 year
• Impaired cognitive, motor, sensory and emotional functions
• Unemployment
• Changes in family dynamics and relationships
• Secondary health issues

The goal of Rehabilitation and Research is...

• To improve the lives of people with disabilities

The Best of Both Worlds
Location

- Kessler Institute for Rehabilitation
  - Chester
  - Saddle Brook
  - West Orange
- Kessler Foundation
  - Neuroraming Center

Clinical Research at Kessler

Northern New Jersey Traumatic Brain Injury Model System: Collaborating Centers

- Rehabilitation Service
  - Kessler Institute for Rehabilitation
- Research
  - Kessler Foundation
- Trauma Hospitals
  - Hackensack University Medical Center
  - Morristown Memorial Hospital
  - Saint Joseph's Medical Center
  - University Hospital

NNJTBIIMS: Components

- Research
  - Speed of processing training to improve cognition post-TBI
  - TBI Quality of Life study
- Dissemination
  - Seminars
  - Publications
- Data Collection (1, 2, 5, 5+ years)

Acute PMR

- Title: Impact of Early Specialized Care of TBI on Rehabilitation Outcomes
- Aims:
  - To identify the impact of early specialized care in brain injury on functional recovery
Virtual Reality - Balance

• Title: Improving Balance in TBI using a Low-Cost Customized Virtual Reality Rehabilitation Tool
• Objective: to evaluate the efficacy of using virtual reality to treat balance disorders following TBI

Virtual Reality

Concussion

• Title: Understanding the Level of Concussion Knowledge in High School Sports in New Jersey
• Objectives:
  – Examine concussion knowledge in high school coaches, ATCs and parents/guardians

Concussion

• Results
  – Both groups scored well in overall knowledge
  – Both groups demonstrated gaps in application of knowledge
  – Majority of parents/guardians did not feel confident in their ability to identify and manage concussion
**Cranioplasty**

- **Title:** The therapeutic value of cranioplasty in individuals with brain injury

  Sung et al, 2009

- **Objective:**
  - To identify the impact of cranioplasty on functional recovery in individuals with decompressive craniectomy.

  Joseph and Reilly, 2009

- **Preliminary Results:** rate of recovery increased following cranioplasty

**Conclusion**

- Addressing the rehabilitation needs of individuals with TBI is best done by combining the talents and expertise of clinicians and researchers— the best of both worlds.

**Thank you!**

**References**