# Measuring Success In Conductive Education

Look at retention in grant program

Look at Functional Outcome Measures

Look at MRI scans

Roberta OShea, PT, DPT, PhD

Presented at the 2016 ACENA conference. Based on preliminary results from the OShea and Theiss URG studies, Governors State University, 2015-2016.

## Pilot Grant

2 grants in concert with each other:

OShea grant: funding for CE hourly adult program, stipend for participants, Funding for pre and post functional outcome measures

Theiss grant: Funding for MRI/DTI and analysis





# The Pilot Grant protocol:

Complete IRB protocols

Recruit subjects at local rehab facility and local fitness center

Complete Pretesting: 6 functional outcome measures and 1 MRI/DTI

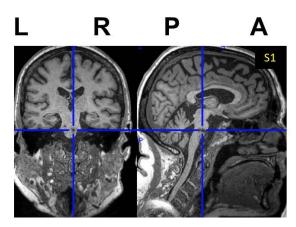
10 week intervention (20 hours)

Post testing

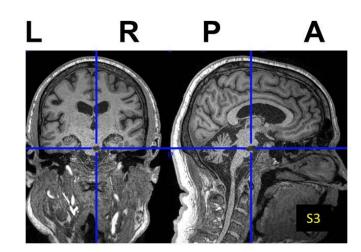
Enrollment in fitness group program

Followup post testing

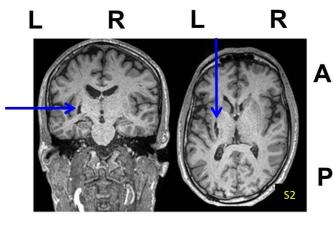
# The Participants



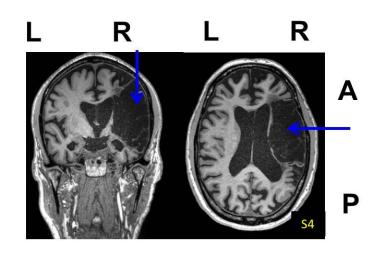
S1 Lesion: Right Pons



S3 Lesion: Right Pons



S2 Lesion: Left Putamen/ Internal Capsule



S4 Lesion: Right Hemisphere

#### **FUNCTIONAL OUTCOME MEASUREMENTS**

Barthel Index

Timed Up and Go

10 meter walk test

Community Integration Scale

Stroke Impact Scale:

ADL/IADL

**Hand Function** 

Mobility

Strength

Memory

**Emotion** 

Participation/ Social

Communication







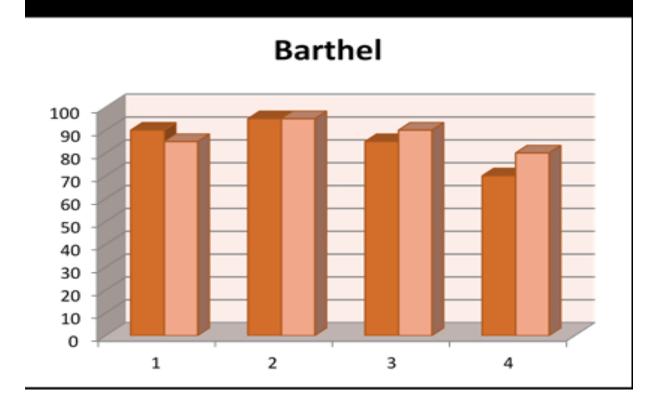
## Outcome Measures after CE Intervention



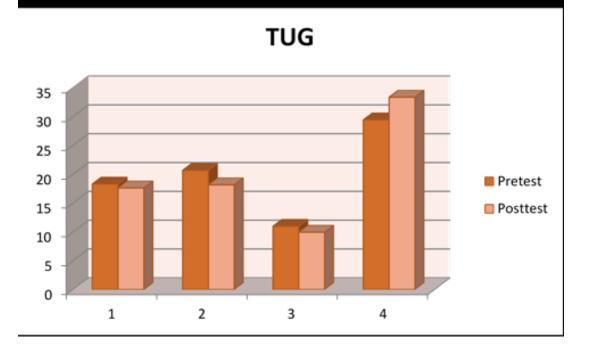


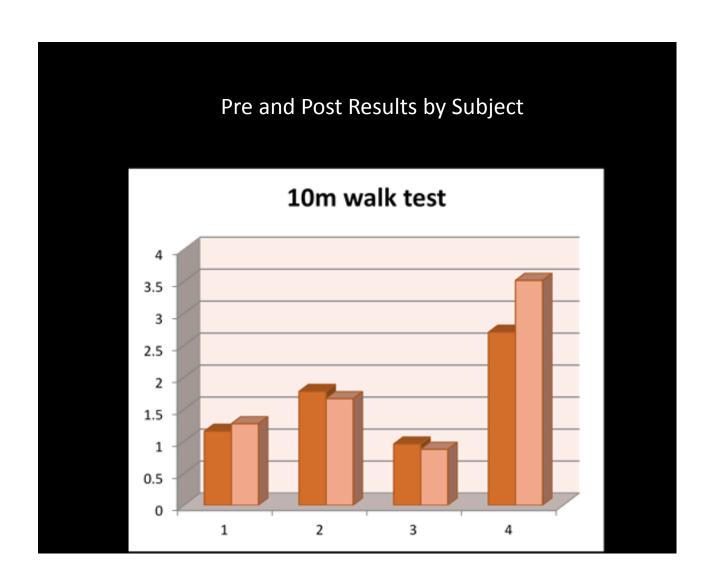


## Pre and Post Results by Subject

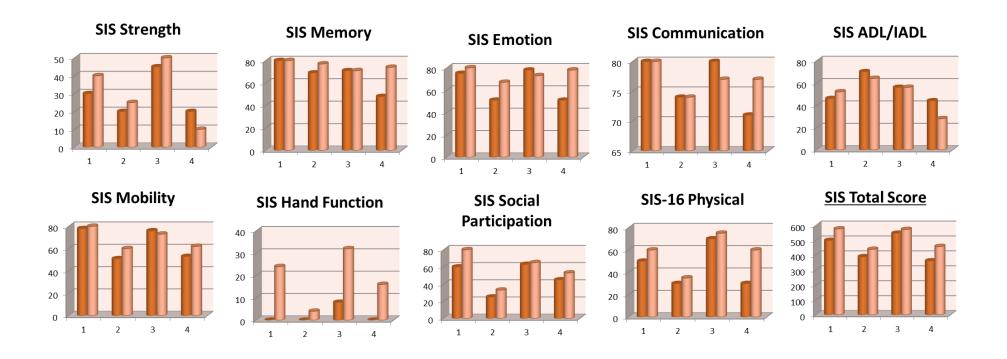


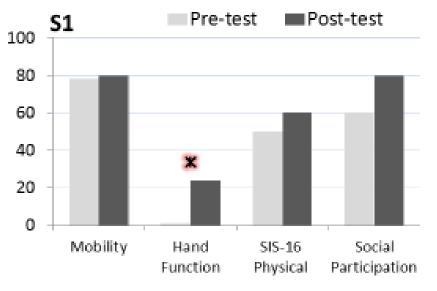
### Pre and Post Results by Subject Timed Up and Go



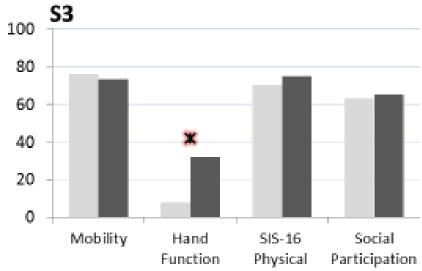


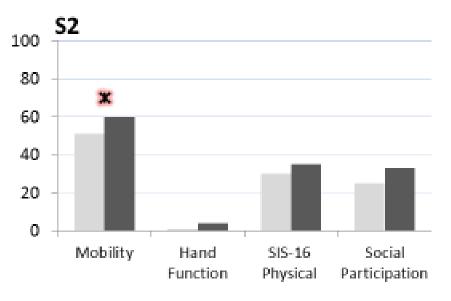
#### Pre and Post Results by Subject Stroke Impact Scale (SIS)



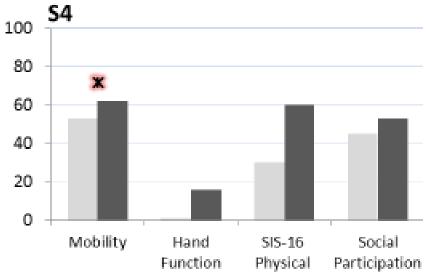


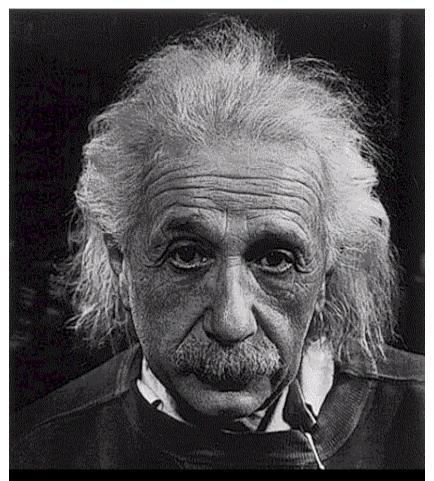
Subjects with pontine lesions (S1 & S3) demonstrated >MCID improvements in SIS Hand Function



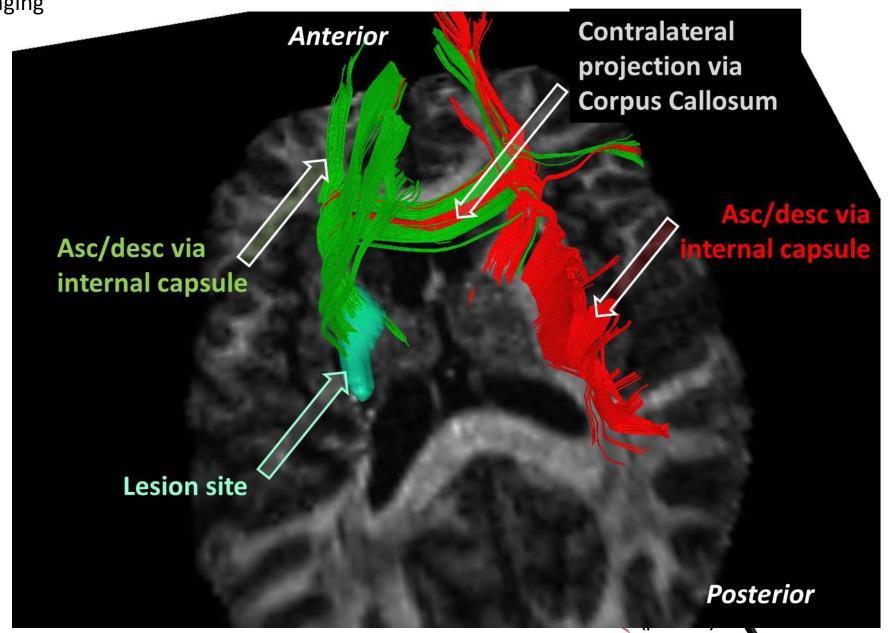


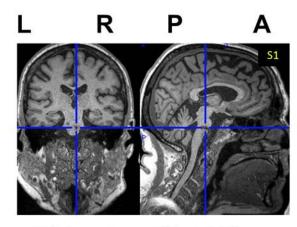
Subjects with subcortical lesions (S2 & S4) demonstrated >MCID improvements in SIS Mobility



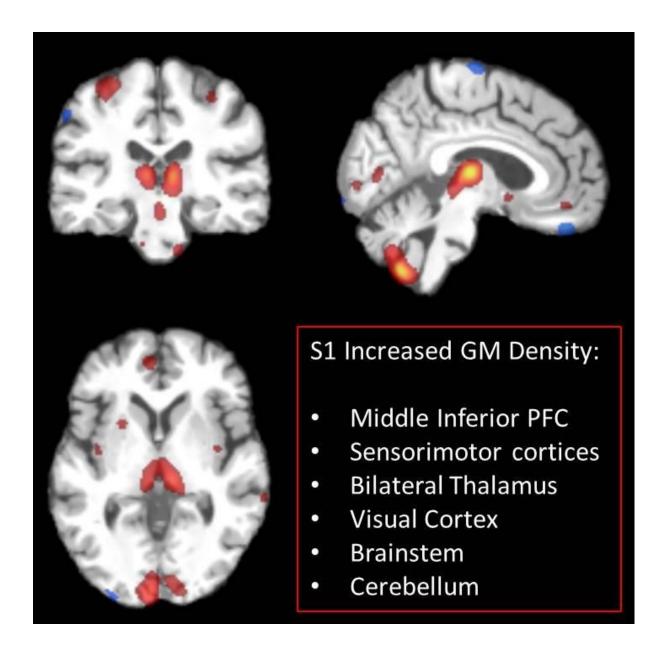


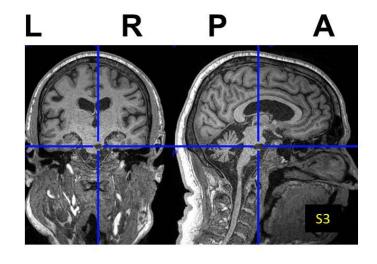
Insanity: doing the same thing over and over again and expecting different results.



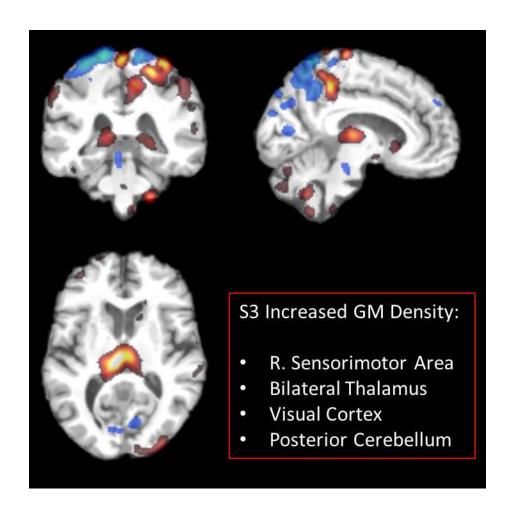


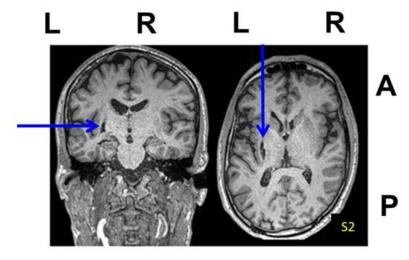
S1 Lesion: Right Pons



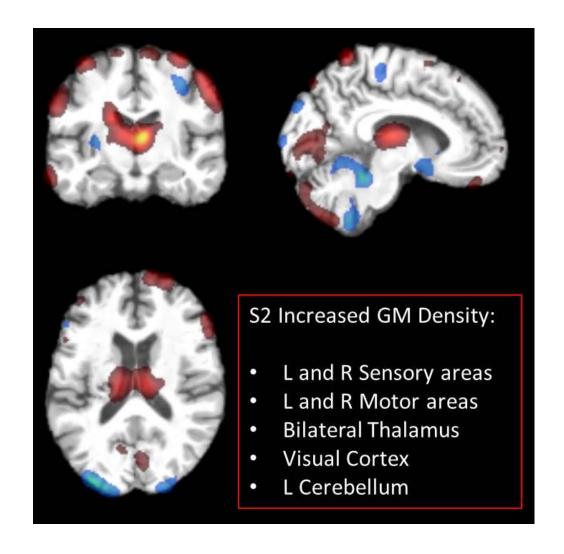


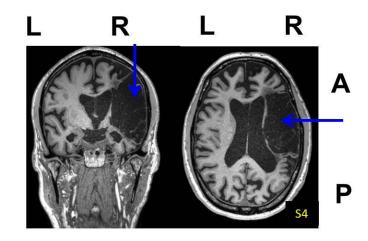
S3 Lesion: Right Pons



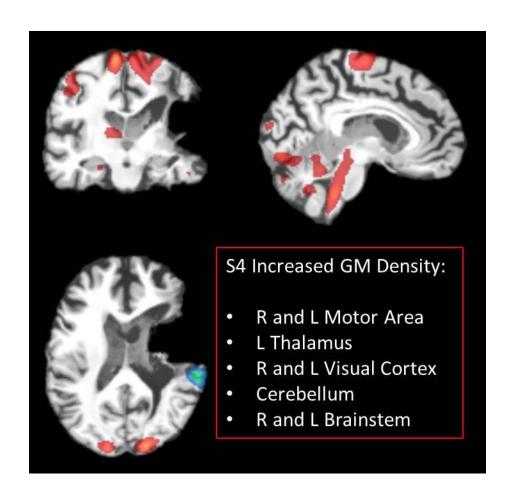


S2 Lesion: Left Putamen/ Internal Capsule





S4 Lesion: Right Hemisphere



### Conclusions about Treating adults in a Pediatric Center..

The positive findings from our study support the CHH study findings. Additionally, our imaging results supported our subjects' functional improvements. The subjects reported improved quality of life and function around their home and community. For some patients with chronic stroke, a 10 week Conductive Education intervention may provide them with peer support and improved functionality.

All participants entered the program with a goal of *improving hand* function. This goal was achieved after the 10 week program. As participants increased awareness of their gait form, better gait patterns were demonstrated (possibly contributing to slower TUG and 10 MWT times). This indicates a shift in focus from speed to form and gait pattern after the study.

**Everyone here** has the sense that right now is one of those moments when we are influencing the future. SayingImages.com

