Who Are You Now?

The reintegration of brain injury survivors in academia

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Here we go ...

This session will cover:
• reintegration planning,
• self-awareness, and,
• self-advocacy aspects of life with brain injury (BI).
The executive functions of the frontal lobes involve the ability to recognize future consequences resulting from current actions, to choose between good and bad actions (or better and best), override and suppress unacceptable social responses, and determine similarities and differences between things or events.

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involved in auditory perception and home to the primary auditory cortex. It is also important for the processing of semantics in both speech and vision.

The temporal lobe contains the hippocampus and plays a key role in the formation of long-term memory. Wernicke’s Area, which spans the region between temporal and parietal lobes, plays a key role (in tandem with Broca’s Area, which is in the frontal lobe).

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The parietal lobe integrates sensory information from different modalities, particularly determining spatial sense and navigation. For example, it comprises somatosensory cortex and the dorsal stream of the visual system. This enables regions of the parietal cortex to map objects perceived visually into body coordinate positions.

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The **occipital lobe** is the visual processing center of the mammalian brain containing most of the anatomical region of the visual cortex.

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The **cerebellum** (Latin for *little brain*) is a region of the brain that plays an important role in motor control. It may also be involved in some cognitive functions such as attention and language ... the cerebellum does not initiate movement, but it contributes to coordination, precision, and accurate timing. It receives input from sensory systems of the spinal cord and from other parts of the brain, and integrates these inputs to fine tune motor activity. Because of this fine-tuning function, damage to the cerebellum does not cause paralysis, but instead produces disorders in fine movement, equilibrium, posture, and motor learning.

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The **BRAIN STEM** provides the main motor and sensory innervation to the face and neck via the cranial nerves. Though small, this is an extremely important part of the brain as the nerve connections of the motor and sensory systems from the main part of the brain to the rest of the body pass through the brain stem.

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Executive Functioning

• Executive functioning is the cognitive language skill that incorporates the higher level skills of self-awareness, self-monitoring, goal setting, planning, initiation, inhibition, task completion, cognitive flexibility, response to therapeutic feedback and goal-directed behavior. (Green, Stevens, Wolfe, 1997)

• It is natural for a brain injury survivor to be “unaware” of impairments. (Yivisaker, Feeney, 1998)
Reintegration Planning

Not all students with BI will:
• want services
• require services
• want to come to disability services
• necessarily “know” they need to or can change their way of work

“... students with TBI typically experienced success in school before their injury.” (Blosser & DePompeoi, 1989)
Reintegration Planning

• The Rehabilitation Act - 1973

• The Americans with Disability Act (ADA) - 1990

• ADA Amendment – 2010

• The ADA in Relation to Section 504 of the Rehabilitation Act
Reintegration Planning

• **K-12 = Multi-Disciplinary Teams**
  
  School Psychologist, SLP, Special Ed Instructor

• **Post-Secondary Institutions = Integrated Service Delivery**
  
  Disability Services, Counseling/Psychological Services, Academic Success Center, Veterans
Reintegration Planning

Before starting a program of study:

- Can student tolerate multiple stimuli
- Has student demonstrated ability to respond to instruction
- Does student acquire new knowledge
- Will the student benefit from being back in a classroom
Reintegration Responsibilities

**Student:**
- Initiate contact
- Provide appropriate documentation/data to effectively demonstrate how disability/diagnosis gets in the way
- Be willing to engage in academic support programs

**Disability Services:**
- Follow the law
- Communicate system changes
- Extend additional resources (e.g. assistive tech, referrals to medical/psychological care providers)

**Institution:**
- Follow the law
- Provide access to services
Reintegration Planning

Orientation/Intake

• Provide general information about BI
• Discuss BI impact on behavioral, cognitive & physical functioning
• Offer specific information about identified/documented deficits/accommodations
• Discuss return-to-school strategies
• Address environmental modifications (adapting schedules, instruction, methods for testing)
Self-Awareness

• Brain Injury survivors “are initially more likely to view themselves the way they were, not the way they are.” (Clark, E., 1996)

• Returning to school forces BI survivors to confront newly acquired deficits or, in some cases, a worsening of prior problems. (Clark, E., 1996)
Self-Advocacy

Not to be confused with self-awareness!

• Self-advocacy = “an individual’s ability to effectively communicate, convey, negotiate, or assert his or her interests, desires, needs, and rights.” (Van Reusen, A., 1996) The Self-Advocacy Strategy for Education & Transition Planning.

• With the ability to self-advocate should come the responsibility for those decisions.
It’s a Journey

- Realities are subjective
- Sometimes we just don’t know
- Never underestimate motivation
- Elaborate/Collaborate
- Safety Net
- Person-Centered
- Confront overprotective
- Address Unrealistic

- Cheer on/Empathize
Scenario

• 22-year-old male, brain injury (severe) in MVA. Ejected in roll over. Intubated at scene. CT shows Diffuse Axonal Injury & left hemiplegia. He has history of seizure disorder and history of ADHD.
Diffuse axonal injury occurs in about half of all severe head traumas, making it one of the most common traumatic brain injuries.

A diffuse axonal injury falls under the category of a diffuse brain injury. This means that instead of occurring in a specific area, like a focal brain injury, it occurs over a more widespread area.

Potential for injury to impact each lobe.
Recommended Accommodations

- Extended time on exams
- Record lectures/Use of Smartpen
- Oral exams
- Note Taking Services
- Text to Audio/Audio to Text
- Reduced Distraction Testing Environment
- Reduced Course Load/Priority Registration
- Counseling for adjustment issues
- Academic Coach/Tutor/Supplemental Instruction
- Time Management Workshop
Scenario

• 19-year-old female, college freshman. First fall resulting in concussion as cheerleader in 2007. Second fall resulting in concussion in 2008. Damage to occipital lobe, temporal lobe and possible bruising to frontal lobe. Student has experienced nausea, short-term memory deficits and “foggy brain.”

• Kick to the side of her head during cheerleading stunt 2012. Student experiences dizziness, vomiting and migraines.
Function Junction

✓ Impaired hearing/muffled hearing
✓ Short-term memory deficits
✓ Low frustration tolerance
✓ Impaired coordination/balance
Recommended Accommodations

- Extended Time on Exams
- Testing in Reduced Distraction Environment
- Priority Registration/Reduced Course Load
- Captioning
- Incomplete
- Medical Withdrawal
- Academic Coach
Scenario

- 33-year-old female, brain injury/closed head injury in MVA. Intubated at scene. Airlifted to Level I trauma center. Unconscious less than 45 minutes/medically induced coma due to brain swelling.
- 3 bruises/bleeds at left frontal lobe
- Damage to occipital lobe
  – (Coup-contrecoup injury)
Function Junction

Left Frontal Lobe
✓ Part of the emotional control center
✓ Involved in controlling language related to movement
✓ Lack of inhibition/Low frustration tolerance
✓ Risk taking – noncompliance with rules
✓ Difficulty interpreting feedback from environment
✓ Spatial orientation
✓ Disruption in spatial orientation
✓ Perseveration on a response – like a dog with a bone
✓ Short-term memory deficits

Occipital Lobe
✓ Diplopia
Recommended Accommodations

- Extended time on exams
- Record lectures/Use of Smartpen
- Oral exams
- Counseling for adjustment issues
- Permission to Leave Class as Needed/Breaks
- Large Screen for Computer
- Academic Coach
- Priority Registration
- Time Management
Scenario

• 26 year-old male, TBI/PTSD, veteran, Operation Enduring Freedom. TBI diagnosis linked to IED blast, which caused several bruises/bleeds on brain & left soldier unconscious.
Function Junction

✓ Impaired hearing/muffled hearing
✓ Short-term memory deficits
✓ Low frustration tolerance
✓ Impaired coordination/balance
✓ Grand sense of self
Recommended Accommodations

- Extended Time on Exams
- Testing in Reduced Distraction Environment
- Reduced Course Load/Priority Registration
- Academic Coach/Tutor/Supplemental Instruction
- Captioning
- Incomplete
- Medical Withdrawal
“New” Normal

- Varies greatly based on personal circumstance.
- Pursuits of the recent past.
- Life is different, but okay!
- Paradigm shift - looking toward the future, rather than primarily longing for the past.
- It is what it is ...

“Rebuilding is a lifelong undertaking. I will always strive to grow and change, although I must measure my progress by a different yardstick.”

Claudia L. Osborn
Resources

- Brain-injury Association of America
  www.biausa.org

- Job Accommodations Network
  www.jan.wvu.edu

- Make the Connection
  www.youtube.com/user/VeteransMTC?v=bsmhrOiWSw

- National Institute of Health: National Institute of Neurological Disorders and Stroke
  www.ninds.nih.gov

*Brain Injury Survival Kit, 365 Tips, Tools & Tricks to Deal with Cognitive Loss*, Cheryle Sullivan, MD


*Over My Head*, Claudia Osborn (www.claudiaosborn.com)
References

• D'Amato RC ; Rothlisberg BA. Journal of Learning Disabilities (J LEARN DISABIL), 1996 Nov; 29(6): 670-83 (65 ref) How education should respond to students with traumatic brain injury.