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Parallels in Cognitive Symptoms in Psychological Health and Acquired Brain Injury Diagnosis

Erin O. Mattingly, M.A., CCC/SLP, CBIS

Moderated by:
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Disclosure

Financial: I am receiving an honorarium from continued.com for this presentation. I have not received any compensation from test, treatment, or application developers or publishers. These recommendations are based off of my clinical experience.

Non-Financial: I currently serve on Committees for both the Academy of Neurologic Communication Disorders and Sciences and the Academy of Certified Brain Injury Specialists. I also serve as the Professional Development Manager for the American Speech- Language-Hearing Association's Special Interest Group-2, Neurogenic Communication Disorders.

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Objectives

After this course, participants will be able to:

- List cognitive symptoms shared between acquired brain injury and psychological health disorders.
- List symptoms of chronic traumatic encephalopathy that mirror psychiatric symptoms.
- Describe appropriate team dynamics and treatment strategies for patients with comorbid cognitive and psychological health disorders.

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Phineas Gage

- Documented psychological changes following traumatic brain injury (TBI)
- 1848, iron bar went through his skull into his frontal lobe
- Personality changes
  - "Negligent, irreverent and profane, unable to take responsibility"
- "Traumatic Insanities"
  - Consciousness alterations
  - Psychosis
  - Neurological symptoms

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Definitions: Acquired Brain Injury (ABI)

- "Damage to the brain, which occurs after birth and is not related to a congenital or a degenerative disease. These impairments may be temporary or permanent and cause partial or functional disability or psychosocial maladjustment." – World Health Organization (Geneva 1996)
- Includes traumatic and non-traumatic causes

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Definition: Psychological Health(PH)/Mental Health Disorders

- "Mental illnesses are health conditions involving changes in thinking, emotion or behavior (or a combination of these). Mental illnesses are associated with distress and/or problems functioning in social, work or family activities." – American Psychiatric Association
- Examples
  - Major Depressive Disorder
  - Attention Deficit Hyperactivity Disorder
  - Schizophrenia
  - Personality Disorder
  - Etc.

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"Typical" Cognitive Communication Symptoms of ABI

- Attention
- Memory
- Executive Functioning
- Complex Problem Solving
- Language
  - Word finding
  - Aphasia
  - Pragmatics
- *Stuttering- typically psychogenic in nature*

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Cognitive Symptoms: ABI and PH

- Executive dysfunction
- Attention
- Immediate, working, and delayed memory
- Pragmatics

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Most Common PH Disorders Following ABI

- Anxiety
- Mood Disorders
  - Major Depression
- Bipolar Disorder
- ADHD
  - Can ADHD be diagnosed following TBI in the setting of organic attention impairment?
- Substance Abuse
- Postconcussion syndrome

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Cognitive Symptoms of PH Disorders

- Memory
- Attention
- Problem Solving
- Executive Dysfunction

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Factors Influencing PH Disorders

- Preinjury history of mental health disorders have higher incidence of more persistent symptoms
- Genetic predisposition
- Circumstances surrounding event/trauma
- Social support

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Cognitive Flexibility vs Psychological Flexibility

- Cognitive (also known as mental) flexibility
  - Component of executive functioning
- Psychological flexibility
  - "the ability to connect with the present moment and experience the thoughts and feelings without unhelpful defense, and to persist in action that is consistent with values, or change that action when the situation demands"

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Differential Diagnosis

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Differential Diagnosis

- Definition
  - "Distinguishing between two or more diseases with similar symptoms by systematically comparing their signs and symptoms" – Medical Dictionary for the Health Professions and Nursing
- Important when considering psychological health diagnoses following ABI
  - E.g., Obsessive Compulsive Disorder and ADHD
  - DSM-5 differentiates cognitive and other problems related to TBI (e.g,. Mild or Major Neurocognitive Disorder)
- Organic Brain Syndrome (Schweiger and Brown)

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Treatment Team

- Neuropsychology
- Psychology/Social Work
- Psychiatry
- SLP
- …

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Treatment

- Best approach is functional, evidence-based treatment
- If determined to be a cognitive cause or comorbidity, evaluate and treat based on symptom, patient goals, and patient psychological needs

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Psychological Treatment

- Outside of our scope, but per Schwarzgold, treatment for majority of psychological and psychiatric disorders is primarily the same after ABI as before

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Postconcussion Syndrome, Chronic Traumatic Encephalopathy, and Psychological Health

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Postconcussion Syndrome (PCS)

- Symptoms
- Recovery may be incorrectly attributed to neurologic insult
- Symptoms
  - memory, balance, attention, tinnitus, sensitivity to light or sound, and irritability
- Prevalence of preinjury psychological disorder high
  - Anxiety
  - Affective
- Acute PCS symptoms can be found in mTBI and non-brain injured trauma patients

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Chronic Traumatic Encephalopathy (CTE)

- "Chronic Traumatic Encephalopathy (CTE) is a progressive degenerative disease of the brain found in people with a history of repetitive brain trauma (often athletes), including symptomatic concussions as well as asymptomatic subconcussive hits to the head that do not cause symptoms." https://www.bu.edu/cte/about/frequently-asked-questions/

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Chronic Traumatic Encephalopathy (CTE)

- Symptoms
  - Memory loss
  - Parkinsonianism
  - Confusion
  - Aggression
  - Depression
  - Suicidality
  - Progressive Dementia

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