


Structuring Environments for Safe, Therapeutic Management of Brain Injuries (and Seminar Series Wrap-up)

Presented by: Matthew Peters, MD
December 4, 2025

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Disclosures

- None relevant to this presentation

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Webinar Series Schedule

- Session 1 (10/9/25): Introduction and Recognizing Behavioral, Emotional, and Cognitive Symptoms in Brain Injury
- Session 2 (10/23/25): Pharmacotherapy for Behavioral, Emotional, and Cognitive symptoms in Brain Injury
- Session 3 (11/6/25): Psychotherapeutic Approaches, Psychosocial Education, and Family Support for Patients with Brain Injury
- **Session 4 (12/4/25): Structuring Environments for Safe, Therapeutic Management of Brain Injuries and Seminar Series Recap and Wrap-up**

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Re-Introductions





Matthew Peters, MD



Durga Roy, MD




Peggy Reisher, MSW

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Session 4 Objectives




- List well-established approaches to create a safe and therapeutic environment for those with brain injuries, clinically and at home
- Identify three elements from each session that will be used to change clinical practice
- Recognize three challenges encountered in the care of patients with brain injury

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Why does environment matter?



- Improve chances of recovery
 - Biologically proven
- Ensure safety
 - Patient, family, staff, bystanders
- Remove friction points
 - Setup for success, not failure
- Support and promote treatment
 - Environment should make treating someone easier, not harder



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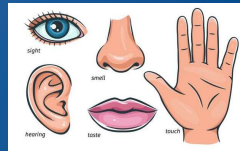
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Human-Environment Interaction



- Bi-directional
 - Influence each other
- Humans use senses
 - Sight, smell, hearing, taste, and touch
- Who has the upper hand?
 - Humans able to intelligently modify the environment
 - However, environmental modification often requires resources



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What constitutes environment?



What is present in the environment matters

What is purposefully absent does as well



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Environment is More Than Physical!



- **Accessibility**
 - Can you get where you want to go?
- **Accommodation**
 - Can you do what you want to do?
- **Resource availability**
 - Are your special needs met?
- **Social Support**
 - Are you accepted and supported by those around you?
- **Equality**
 - Are you treated equally by others?



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What constitutes environment?



- **Physical and structural**
 - Design and layout
 - Natural environment
 - Lighting, noise, crowds
- **Attitudes and support**
 - Encouragement, prejudice, discrimination
- **Services and Assistance**
 - Transportation, education, training, healthcare
- **Policies**
 - Community programs, government programs



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Accessing the Environment



- **Ideally done with the help of an occupational therapist (OT) via a home visit**
 - Can be deemed medically necessary to complete prior to discharge and therefore covered by insurance
- **Home is evaluated for hazards and recommendations for specific adaptations made**
 - Suited to the person's physical and cognitive abilities



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Adjusting the Environment

- Modifications should address:
 - Safety
 - Ease and mobility
 - Promotion of positive interactions
- Financing the modifications are often a concern:
 - Medical insurance typically does not pay
 - If relevant, long-term care insurance, auto insurance, or worker's compensation may cover modifications
 - There are some complicated government programs (waivers and grants)
 - Non-profits and volunteer organizations (e.g., Rebuilding Together)
 - **Often the family / patient must pay**
 - No better time to reach out to skilled friends and family to help!



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Physical Home Modification

- High risk areas are often those that get wet:
 - Bathroom, kitchen, outdoor entry / exit points
- Grab bars and handrails
 - Bathrooms, stairways, strategic locations
- Ramps
- Non-slip mats in showers and bathroom floors
- Adjustable, level-access showers with roll-in features
- Widening doorways and installing power openers
- Ceiling lifts



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Physical Home Modification

- Keep the floors clean and clear!
 - Remove clutter
 - Remove or secure tripping hazards such as rugs, electrical cords
 - Pets...
- Lighting
 - Ensure good lighting, both day and night
 - BUT also consider light sensitivity, if present
- Label!
 - Kitchen cupboards, bathroom cabinets, dressers




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Use of Technology



- **Technology**
 - Internet of things (smart home) devices have many helpful features
 - Control lighting, temperature, security with voice or remotely
 - "Always on" method for initiating a video or audio call
 - Companion device for playing music, news
 - Audible, detailed alarms that require confirmation
 - Medical alert systems and wearables
 - Phones, smart watches
 - Smart pill boxes
- **BUT, may take time to learn and cause frustration**



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Adjusting the Environment




- But remember, the environment is more than just physical!
 - Many modifications are free / low-cost
- A consistent daily routine provides stability
 - Simple, predictable schedules create normalcy
 - Activities can still be diverse
- Effective communication is key
 - Establish that have gained attention
 - Speak clearly and while facing individual
 - Use familiar sounds or cues
 - Offer options to encourage independence and confidence




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Adjusting the Environment



- Caregivers must know how to safely use devices, manage medications, and supervise activities
- **Caregivers must also take time to focus on their own wellbeing**



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Environment Summary



- Environment can improve chances of recovery, ensure safety, remove friction points, and support / promote treatment
- Human-environment interaction is bi-directional
- Environment is more than physical!
- Start with an environmental safety assessment
- Physical modifications are often needed with a focus on safety, ease, mobility, and promoting positive interactions
- Remember that daily routine and communication are also essential components of environment

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Thank You!



- Questions?

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Session 4 Objectives



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- Recognize three challenges encountered in the care of patients with brain injury

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Webinar Series Schedule



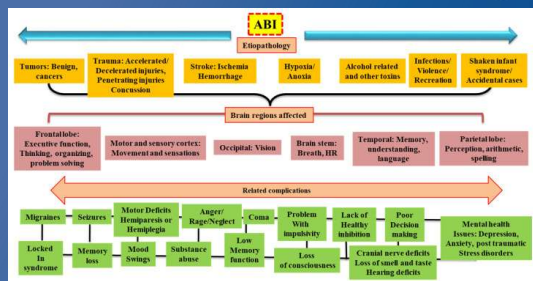
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Session 1 Recap – Brain Injury Types



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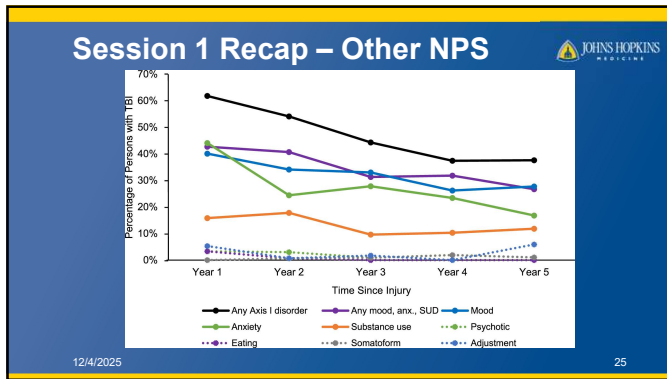
Session 1 Recap – Cognitive Symptoms



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Session 1 Recap - OBISSS

Online Brain Injury Screening and Support System

Access OBISSS Now:
OBISSS Link: nashia.org/obiss
State: Nebraska
Password: 402

Online Brain Injury Screening and Support System

- Helps identify lifetime history of brain injury
- Offers tip sheets to help manage symptoms
- Self-administered
- Free for all to use

Note: This screening tool is not a medical evaluation and does not provide a diagnosis.

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Session 1 Key Elements:

- Peggy R:** I gained a deeper understanding of how brain injury differs from psychiatric disorders
- Durga R:** Access to integrated care services are even more strained in rural areas of Nebraska, especially without access to telemedicine
- Matt P:** The Online Brain Injury Screening and Support System is a thorough, FREE tool for clinicians in Nebraska

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Audience Responses – Session 1



- Physiology of injury, behavioral adjustment, and social adjustment
- There are traumatic external causes and non-traumatic internal causes of brain injury
- When assessing, we need to use a holistic approach and treat comorbid disorders
- Assisting with substance abuse is essential and a huge challenge
- Specific case studies are a great way to learn how to help identify possible brain injuries
- Validation that I'm doing the right thing!
- Not currently practicing, but appreciate the additional knowledge and information regarding brain injuries

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Session 2 Recap



- Multidisciplinary care is essential, but not always available
 - Physical Medicine & Rehabilitation
 - Neuropsychiatry / Behavioral Neurology
 - Neuropsychology
 - Occupational Therapy
 - Physical Therapy
 - Speech Language Pathology



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Session 2 Recap



- Both neuropsychiatric and idiopathic psychiatric conditions can occur / co-occur
- Brain injury may change the nature of a previously well-treated mental health condition



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Session 2 Recap



- Multi-modality care is often required
 - **Pharmacotherapy**
 - Psychotherapy
 - Cognitive rehabilitation
 - Family therapy
 - Vocational rehabilitation
- **Pharmacotherapy is often NOT the most important!**



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Session 2 Recap



- No FDA-approved medications for NPS following brain injury
- Limited and fragmented evidence
- Often treating symptoms rather than syndromes
- **Start low, go slow, don't stop**



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Session 2 Key Elements:



- **Peggy R:** While I don't practice as a clinician, I found it very helpful to learn about the most common side effects associated with pharmacologic agents
- **Durga R:** Substance use services are integral in the care of brain injury but hard to find, especially in rural communities
- **Matt P:** Although evidence is limited, we can and should treat the cognitive and neuropsychiatric symptoms arising following brain injury

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Audience Responses – Session 2



- Use a multidisciplinary approach to meet the client where they're at
- May need to focus on symptoms rather than syndrome
- Need to consider pre-morbid conditions and their impact on symptoms following brain injury
- Medications used to treat symptomatology, especially how to treat memory loss
- Ongoing, longitudinal review of prescribed medications is important
- Benzodiazepines can cause agitation in those with brain injury
- Love case studies!

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Session 3 Recap



Treatment of Neuropsychiatric Symptoms

Pharmacologic Psychotherapeutic Rehabilitative Systemic

Integration of Modalities is Key

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Session 3 Recap



- Approaches to effective psychotherapy in brain injury use interpersonal and adaptive strategies
 - Apply a holistic and rehabilitative mindset
 - Tailor to deficits in attention, processing, memory, executive function
 - **Customize the sessions according to ability of the patient**

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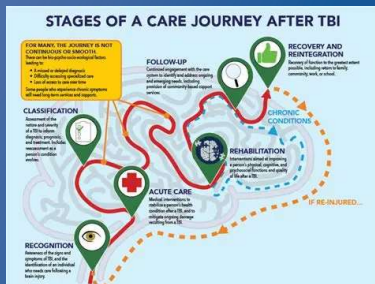
Session 3 Recap



- Approaches to Effective Rehabilitation in Brain Injury
 - Initiate treatment early
 - Foster and guide the natural recovery processes
 - Decrease the development of maladaptive patterns
 - **Functional change is the goal of treatment**

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Session 3 Recap



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Session 3 Key Elements:



- **Peggy R:** I've always believed in the importance of a team-based, integrated approach, but it was valuable to hear Dr. Roy reinforce how essential that truly is
- **Durga R:** Family therapy paradigms for brain injury have largely been piloted in children
- **Matt P:** Clinicians of all skill levels have a role to play in psychotherapeutic approaches and rehabilitation following brain injury

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Audience Responses – Session 3



- Information about which psychotherapeutic approaches to use with patients and their families
- Assist patients and families with transition into the community
- Utilize psychosocial education to move towards patient acceptance following brain injury
- Psychosocial rehab can target social skills to assist in client's successful reintegration into society
- Real-time case discussions are very useful for realistic approaches

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Peggy R. Three Challenges



- A major challenge is that clinicians do not consistently ask about or screen for brain injury, often attributing symptoms solely to other behavioral health conditions
- Prescribers are not always informed or trained on how medications may uniquely affect individuals with a brain injury
- Brain injury can present in ways that resemble many other conditions, which makes identification and appropriate care more difficult

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Durga R. Three Challenges



- Integrated care models are often multimodal but not implemented as a single multidisciplinary system as they should be
- Polypharmacy continues to be a management barrier
- CBT has its limitations in this population, though it has the best evidence amongst all therapies

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Matt P. Three Challenges



- Case identification (i.e., knowing if someone has suffered a brain injury) is difficult and takes time and energy to do properly
- The available evidence base for treatment often does not apply neatly to the patient sitting in front of you
- Brain injury resources can feel nearly impossible to identify and successfully receive

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Audience Responses – Challenges

- Patient confusion, frustration, and variability on a day-to-day basis
- Helping the patient understand what is happening to them
- Knowing where to start (e.g., picking the one or two elements to work on first)
- Getting past difficult behaviors to develop a therapeutic alliance
- Delineating pre-morbid vs. new symptoms in a patient you did not know before an injury

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Audience Responses – Challenges

- Patient willingness to accept treatment, including medications
- Difficulty following through with appointments
 - Cognitive difficulties can make this harder
- Ability to afford treatment
- Control of alcohol and illicit substance use
 - And lack of patient awareness of the negative outcomes
- Lack of residential treatment
- Integrating different services requires multiple agencies

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Audience Responses – Challenges

- Family disagreement and lack of insight into patient's need
 - Managing family expectations
- Caregivers need more support
- Care is even harder to find in rural areas
- Public does not have very good knowledge about people with brain injuries

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Thank You!

- Questions?

JOHNS HOPKINS
MEDICINE

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