

Co-Occurring Brain Injury and Depression: Improving Outcomes



Jean Capler, MSW, LCSW, CBIS

Penny Torma, LSW, CBIS

Wendy Waldman, BSW, CBIST

Brain Injury Overview



Acquired Brain Injury(ABI)

An Acquired Brain Injury is an injury to the brain, which is not hereditary, congenital, or degenerative.

- **All Brain Injuries are considered Acquired Brain Injuries.**

Traumatic Brain Injury (TBI)

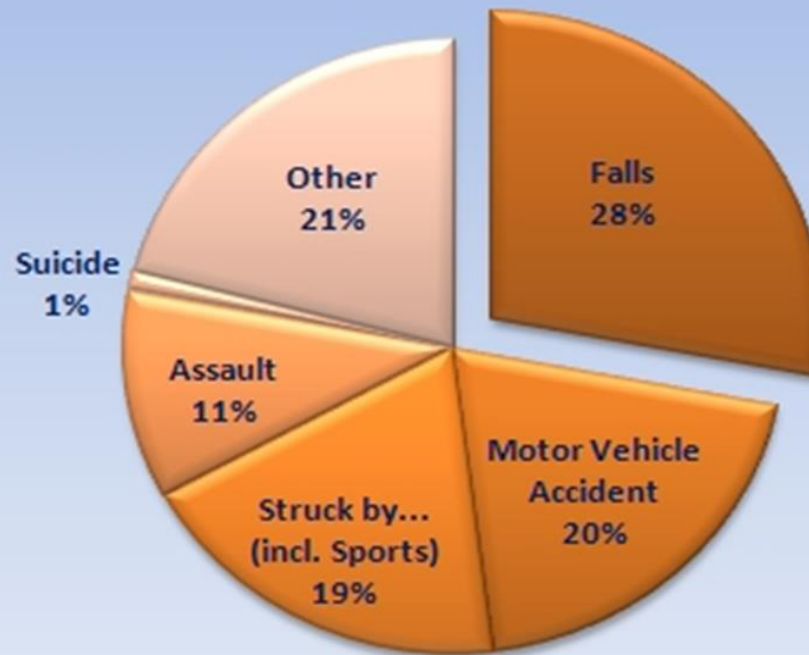
Traumatic Brain Injury or TBI is defined as an alteration in brain function, or other evidence of brain pathology, caused by an external force.

- All **Traumatic Brain Injury** is considered an acquired brain injury

ABI: TBI Causes

Traumatic Injuries

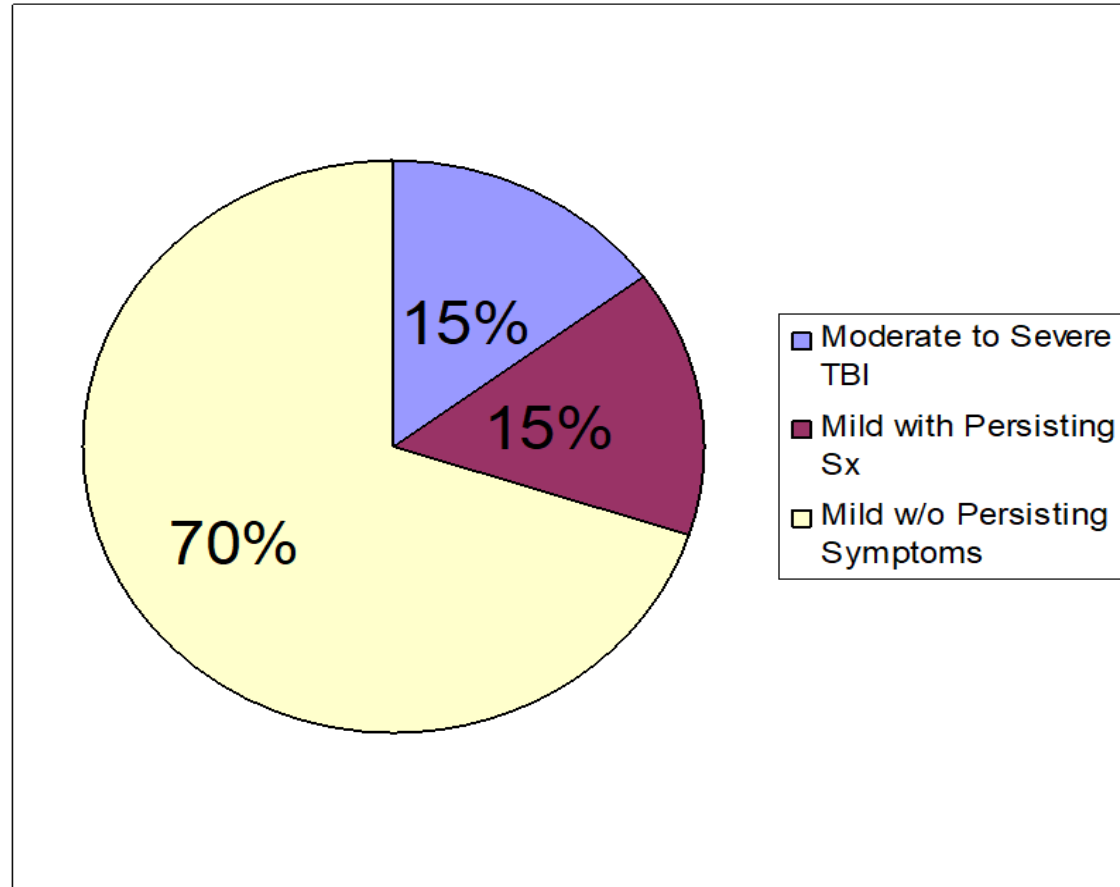
Major Causes of Traumatic Brain Injuries



Source: National Center for Injury Prevention and Control, CDC

TBI Incidence by Severity

8.5% of Americans have experienced a brain injury



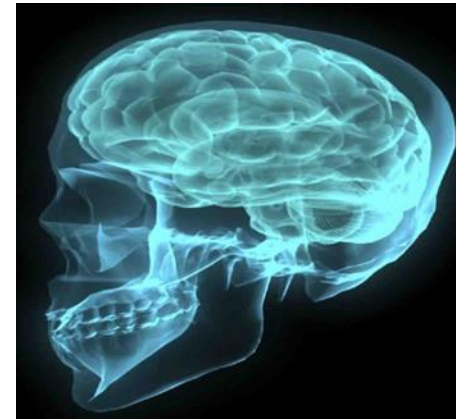
TBI in the population

- 1.7 million TBI each year in USA & 90% of those survive
- 4,000/day
- 3/minute
- 10,000 Hoosiers per year in Indiana



ABI—Non-Traumatic Brain Injuries

- Stroke
- Aneurysm
- Tumor
- Hypoxia or Anoxia
- Disease process (non-progressive)
- Neurotoxins
- Electric shock or lightning strike



People Get Lost in the System

- In Indiana based on ISDH figures
 - 7,808 Hoosiers sustain a moderate – severe brain injury every year
 - Only 6% are admitted to rehab center for care
 - What happened to the other 7,340??

Common Effects after Brain Injury

- **Cognitive:**

- Short-term memory loss
- Slowed processing speed
- Executive Functioning
- Concentration/attention
- Communication Skills

- **Physical**

- Seizures
- Muscle Spasticity
- Vision Issues
- Loss of smell and/or taste
- Speech Impairments
- Headaches
- Fatigue
- Balance

- **Emotional/ Behavioral**

- Depression
- Anxiety
- Irritability
- Egocentric Behaviors
- Impulsivity
- Mood Swings

In the room...

- How many of you have worked with a client with a brain injury?
- How did you know they had a brain injury?
- How many of you ask about history of brain injury?

How many work with:

- People with addiction issues (50%)
- People with mental illness (40-60%)
- People who have been incarcerated (60%)
- People in domestic violence situations (50-60%)
- People experiencing homelessness (40-60%)
- People who experienced childhood abuse (??)
- Athletes
- Males

Unrecognized Brain Injury

- “You just had a concussion”
- Never went to the doctor—lots of reasons!
- Other injuries distract
- Incorrect diagnosis

Important to ASK!

- Have you ever hit your head or been knocked unconscious or dazed?
- Use OSU Screening Instrument

Keep in Mind

- Brain injury may be recent
- Brain injury may have happened years ago
- May have experienced multiple brain injuries of varying severity throughout life
- Early brain injuries can affect life course (education, risk of SUD, depression, criminal charges, etc.)
- Often the history of brain injury has never been recognized or addressed

Impairments affecting access to & participation in services

- Memory
- Processing
- Attention
- Emotion Regulation
- Problem Solving
- Anger/Rage
- Impulsivity
- Judgement
- Initiation
- Lack of a “filter”

Brain Injury and Depression: Best Practices

Incidence of Depression & Anxiety Post mTBI

- 50% of mTBI patients report psych symptoms (Personality change, irritability, anxiety, depression) in 1st 3 months
- Depression reported in 14-46% of mTBI in 1st yr after injury, 11-61% up to 50 yrs post injury (avg is 30%) (Struchen et al., 2009)
- Anxiety disorders occur in 11-70%
- Apathy in ~ 70% (Guillamondegui, et al., 2011)

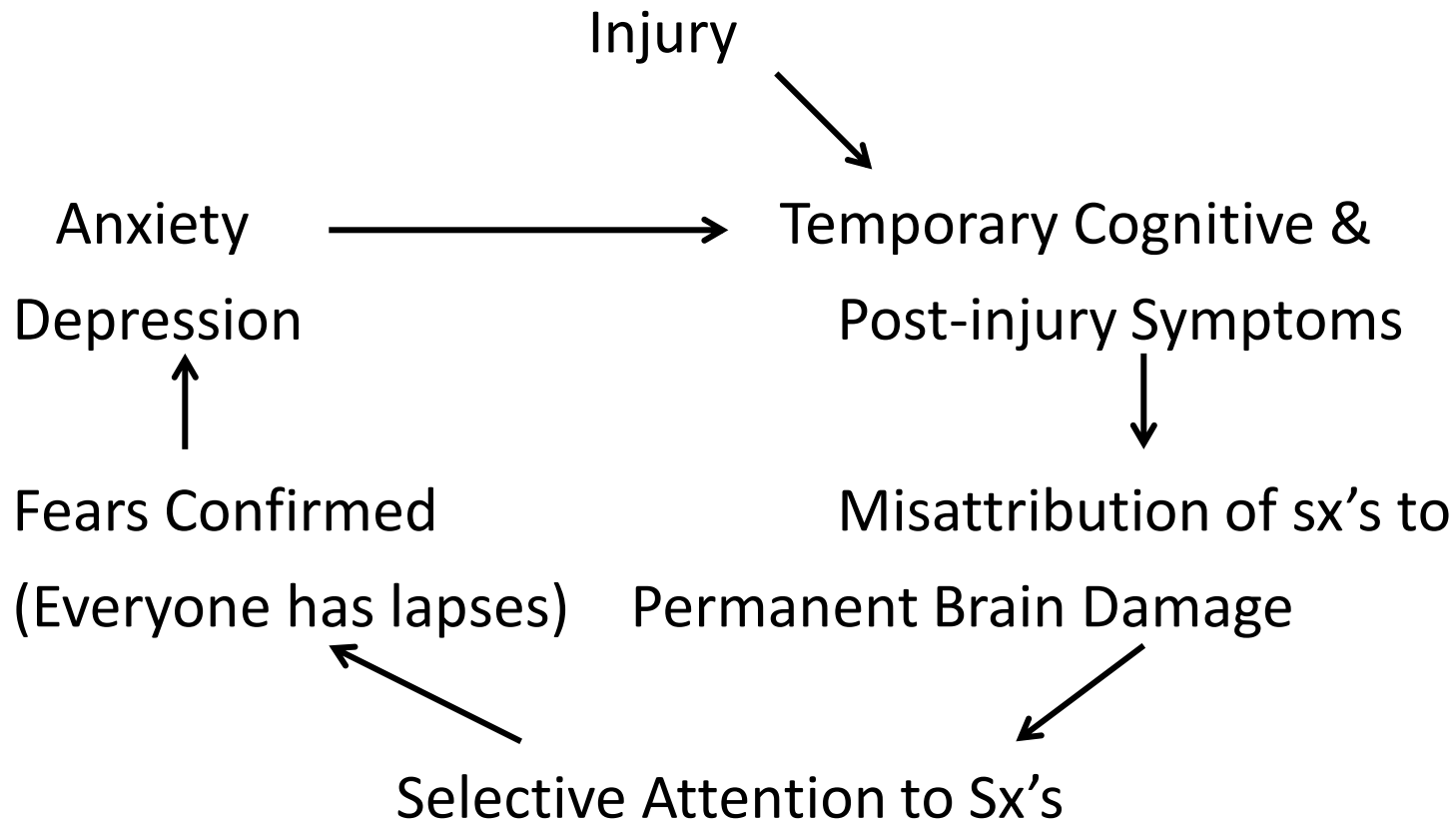
Depression After a Brain Injury

- Adjusting to the changes after injury
 - In personal functioning
 - In roles within family
 - In employment
 - In leisure activities
- Brain chemistry changes after injury
- Catastrophic reaction after mild brain injury

Common Adjustment Issues

- Changed abilities → changed roles
- “New normal”
- Dealing with uncertainty (“will I get better, and how much better?”)
- Loss of self esteem
- Changes in family functioning
- Anxiety with every step forward → depression

The Catastrophic Reaction



Post Concussive Syndrome (PCS)

- ICD-10: a set of commonly reported emotional, cognitive, and somatosensory symptoms that occur in a loose cluster following TBI.

Common Symptoms of PCS

- Headache
- Dizziness
- Decreased concentration
- Memory problems
- Irritability
- Nausea/vomiting
- Sleep changes
- Fatigue
- Visual disturbances
- Sensitivity to noise
- Sensitivity to light
- Judgment problems
- Depression
- Anxiety
- Balance problems

(Ryan & Warden, 2003)

Brain Injury & Suicidality

- Suicidal ideation, attempts, & completions 2-4x more likely (Teasdale & Engberg, 2001)
 - Increased risk of depression & anxiety
 - Increased impulsivity
 - Poor problem solving
 - Cognitive impairment in learning, remembering, and implementing coping skills
 - Increased risk of substance abuse
 - Loss of self esteem and sense of efficacy

Diagnosis is Complicated!

Common Sx of Depression

- Problems concentrating
- Difficulty making decisions
- Memory issues
- Slower thought processes
- Fatigue, low energy
- Sleep changes
- Aches, pains, headaches
- Irritability
- Sometimes flat affect

Common Sx of Brain Injury

- Problems concentrating
- Difficulty making decisions
- Memory issues
- Slower thought processes
- Fatigue, low energy
- Sleep changes
- Headaches
- Irritability
- Sometimes flat affect

Sorting Out What's Going On

- Challenging but important
 - Impacts treatment approach
- History from all available sources
 - Interview with client and family
 - Medical records—GP, Psychiatrists, Neurologists, Neuropsychologists, Speech & Occupational Therapists
- Neuropsychological Evaluation is very helpful

Treatment—General Approach

- Sort out what's going on
- Make appropriate referrals to address the BI-related impairments
- Treat the depression employing appropriate accommodations and strategies
- Understand the common issues contributing to depression after brain injury

Tx of Depression Post Brain Injury

- Address selective over-attention to symptoms
- Challenge distorted cognitions
- Overcome avoidance
 - Resume range of activities
 - Distress tolerance exercises
- Build confidence
- Resume roles as much as possible
- Address family functioning
- Address adjustment issues
- Address grief related to losses after brain injury

Helpful Accommodations

- Reminder calls or texts
- Adjust lighting for clients with light sensitivity
- Reduce distractions in meeting area
 - Visual
 - Background noise
- Accommodations for communication issues
 - Supplemental writing/drawing
 - Negotiating what strategies they find helpful

Strategies for Working with Clients Post Brain Injury

- Write things down
- Encourage use of day planner, notebooks, calendars, electronic reminders
- Don't assume "resistance"
- Provide appropriate accommodations
- Provide BI education for client & family
- Referral to brain injury specialized services

Screening for Brain Injury

OSU TBI-ID & ABI

The Ohio State University (OSU) Traumatic Brain Injury (TBI) Identification Method & ABI (OSU TBI-ID & ABI) is a standardized procedure for eliciting a person's lifetime history of ABI via a 3-5 minute structured interview.

While not ideal for determining lifetime exposure to potentially damaging brain injury, self-report remains the gold standard for research and clinical use.

Ohio State University TBI Identification Method + ABI — Interview Form

Step 1

Ask questions 1-5 below.

Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You do not need to ask further about loss of consciousness or other injury details during this step.

I am going to ask you about injuries to your head or neck that you may have had anytime in your life.

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.

NO YES—Record cause in chart

2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?

NO YES—Record cause in chart

3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?

NO YES—Record cause in chart

4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?

NO YES—Record cause in chart

5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.

NO YES—Record cause in chart

Interviewer instruction:

If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," then proceed to Step 3.

Step 2

Interviewer instruction:

If the answer is "yes" to any of the questions in Step 1 ask the following additional questions about each reported injury and add details to the chart below.

6. Were you knocked out or did you lose consciousness (LOC)?

If yes, how long?

If no, were you dazed or did you have a gap in your memory from the injury?

How old were you?

Step 3

Interviewer instruction:

Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)?

If yes, what was the typical or usual effect—were you knocked out (Loss of Consciousness - LOC)?

If no, were you dazed or did you have a gap in your memory from the injury?

What was the most severe effect from one of the times you had an impact to the head?

How old were you when these repeated injuries began?

Ended?

Step 4

Interviewer instruction:

Ask the following questions to help identify other Acquired Brain Injury (ABI) and complete the chart below.

I am going to ask you about any other illness or medical problem you may have had.

1. Have you ever been told that you have had a stroke or bleeding in your brain? Other words you may have heard include "ruptured aneurysm" or "infarct"

NO YES—Record cause in chart

2. Have you ever been told that you have had a loss of oxygen to the brain? This could result from losing consciousness or passing out after a drug overdose, strangulation, near-drowning, heart attack/heart stopping, breathing stopped or inability to wake up after a medical procedure, excessive blood loss, complications of anesthesia.

NO YES—Record cause in chart

3. Have you ever been electrocuted or struck by lightning?

NO YES—Record cause in chart

4. Have you ever had an infection in your brain? You may have heard the words "meningitis" or "encephalitis"

NO YES—Record cause in chart

5. Have you ever had a tumor in your brain?

NO YES—Record cause in chart

6. Have you ever had brain surgery? This could have been surgery for epilepsy, shunt placement, or tumor removal.

NO YES—Record cause in chart

7. Have you ever been exposed to toxic hazards? This could result from exposure to lead, mercury, uranium/radiation, environmental hazards, or carbon monoxide.

NO YES—Record cause in chart

Step 1 Cause	Step 2 Loss of consciousness (LOC)/knocked out				Dazed/Mem Gap		Age
	No LOC	< 30 Min	30 Min-24 hrs	> 24 hrs	Yes	No	

If more injuries with LOC: How Many? ____ Longest knocked out? ____ How many ≥ 30 mins? ____ Youngest age? ____

Step 3 Cause of repeated injury	Typical Effect		Most Severe Effect			Age		
	Dazed/Memory gap, no LOC	LOC	Dazed/Memory gap, no LOC	LOC < 30 mins	Dazed/Mem Gap	LOC > 24 hrs	Begin	Ended

Step 4 Cause	Medication Treatment (Y/N)		Hospitalization (Y/N)		Age

Services that can Make the Difference

Helpful Services

- Neuropsychologists
- Neurologists
- Psychiatrists (PM&R)
- Speech Therapists for Cognitive Rehab
- Psychotherapists with knowledge of BI
- Indiana Vocational Rehabilitation
- Resource Facilitation
- Employment Services
- Waiver Management

Resource Facilitation

Resource Facilitation

- *Specialized service for people with brain injuries who have a return to work or return to school goal*
 - Funded by Vocational Rehab
 - Assists with access to services & supports
 - Coordination among those services & supports
 - Provide education on BI and resources
 - Provided by a team of brain injury specialists
 - Specific service is tailored to specific needs

RF Services & Supports

Basic Needs Services

- Housing
- Transportation
- Food
- Applying for Social Services
- Obtaining GED
- Health InsuranceBasic

BI Supportive Service

- Strategies for Managing Cognitive/Behavioral Impairments
- Patient-Family Education about Brain Injury
- Consulting with other Providers about how to modify services for Brain Injury

Eligibility for Resource Facilitation

- Acquired non-progressive brain injury
- Goal of return to competitive employment or school that will lead to competitive employment (Not sheltered workshop)
- At least 17 years of age

RF Regional Map

Northern Indiana

Local Support Leader:

Penny Torma

Resource Facilitator:

Khady Diop

Karen Marsh

Central Indiana

Local Support Leader:

Wendy Waldman, BSW, CBIS

Resource Facilitators:

Susie Crane, CBIS

Pam Nihiser, CBIS

Anthony Laffoon, MA

Chrissy Simpson

Southern Indiana

Local Support Leader:

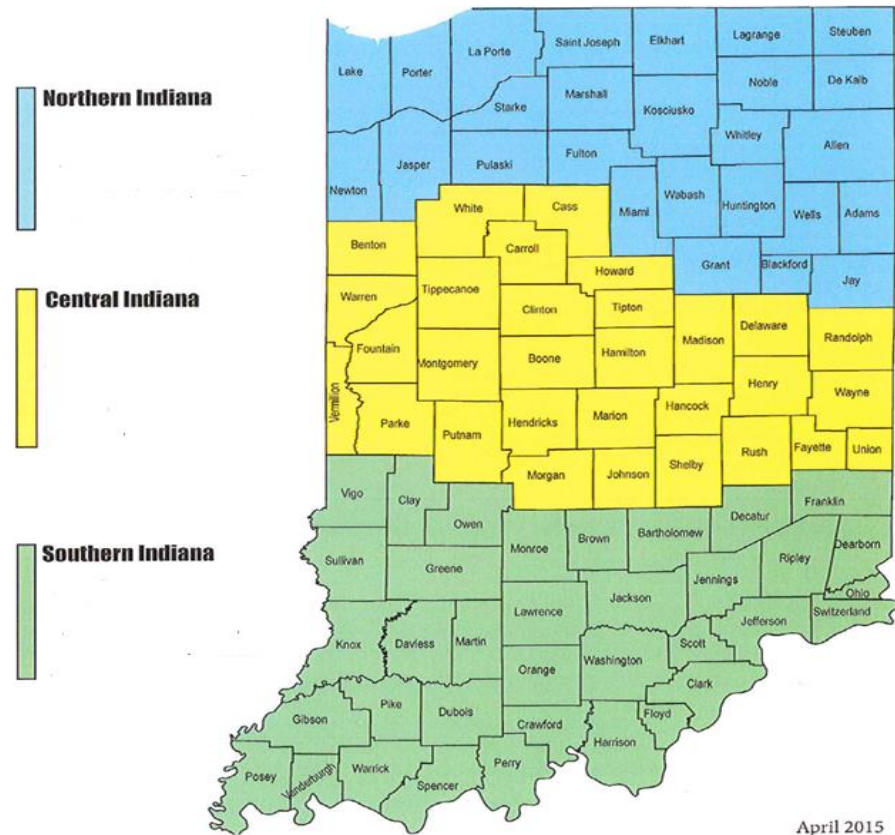
Jean Capler, MSW, LCSW

Resource Facilitator:

Mary Austin

Amy Miller

REGIONAL MAP



To Contact Us

Penny Torma (North)

574-286-8767 penny.torma@rhin.com

Wendy Waldman (Central)

317-410-3532 wendy.waldman@rhin.com

Jean Capler (South)

812-325-0885 jean.capler@rhin.com

