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Understanding and Managing Anosognosia: Strategies for Speech-Language Pathologists

MSHA 2025

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ALLISON MEZO, M.A., CCC-SLP, CBIST

- WMU Grad (Go Broncos!)
- Medical SLP with expertise in adult neurogenic communication disorders
- Certified Brain Injury Specialist Trainer (CBIST) and Brain Injury Fundamentals Trainer for Hope Network Neuro Rehabilitation (HNNR)
- Current coordinator of the Aphasia Communication Enhancement (ACE) Program at Western Michigan University (WMU)
- MSHA Healthcare Committee & Member-At-Large for SW Michigan
- Brain injury survivor – 9 months post-mild TBI

- Disclosures: paid employee at HNNR and WMU

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KILEY KRZYSTOFIAK, B.A.

- 2nd-year SLP graduate student at WMU (Almost there!)
- Clinical experience in:
  - AAC, Articulation, Cognitive Impairment, Expressive/Receptive Language, Pragmatics, Swallowing and Voice
- Current externships:
  - Hope Network Neuro Rehabilitation
  - Crescent Minds Speech Therapy
- Interest in pursuing Private Practice

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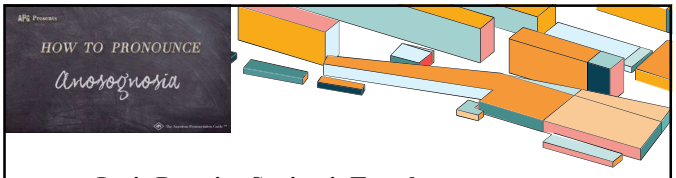
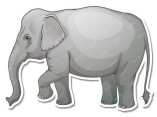


Let's Practice Saying it Together

ANOSOGNOSIA

"ANN-O-SOG-NO-ZHA"



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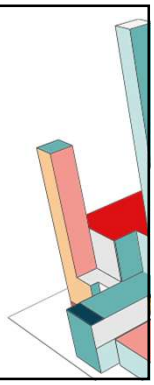
Learning Objectives

- ❑ Define **anosognosia** and distinguish it from denial and related phenomena.
- ❑ Review the process and learn tools available for **assessing** anosognosia.
- ❑ Explore evidence-based **treatments** and strategies for managing anosognosia in therapy.



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Reflection Questions For You

In **your clinical practice**, have you **assessed** or **treated** a client with **anosognosia**?

Did you feel **prepared** to do so?

How **confident** do you feel in your **treatment** of awareness?

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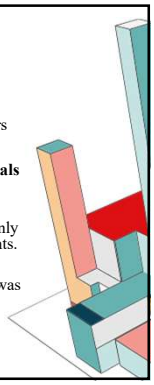
Why Do We Ask That?

Ramsey & Blake (2020) published an article regarding SLPs' preparedness to diagnose and treat cognitive-communication disorders (CCD) following right hemisphere damage (RHD):

- **66%** of SLPs reported that they **do not have adequate materials** for diagnosing CCD after RHD.
- **80%** of SLPs diagnose **awareness,** pragmatics, and prosody only through **observation**, rather than using standardized assessments.
- The **average confidence level** in diagnosing CCD after RHD was **7.7** on a **1-10 scale**, indicating moderate confidence despite limited assessment tools.



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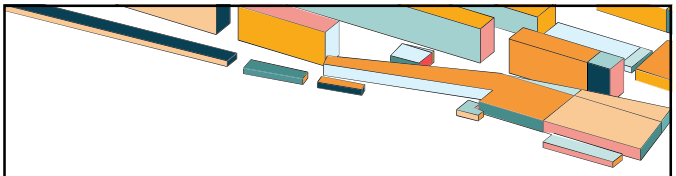

Laying the Groundwork

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Defining Anosognosia

The **reduced** capacity to *identify or credibly judge* one's own **abilities** and **deficits**.

- Reduced *awareness*.

From the Greek: **a**, without; **noso**, disease; **gnosia**, knowledge

"Not knowing disease"

Three key factors define anosognosia: (Gasquoine, 2016)

(1) Underreporting of striking symptoms or disability;

(2) A tendency toward positive self-evaluation;

(3) They may ignore signs of difficulty and fail to notice their own mistakes.

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Awareness Falls Within What is Considered Our Executive Functions

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Etiology

Acquired Brain Injury

- Stroke (both hemispheres!!)
- TBI
- Toxins
- Infections
- Hypoxia
- Tumors

Neurodegenerative Populations

Mental Health Disorders

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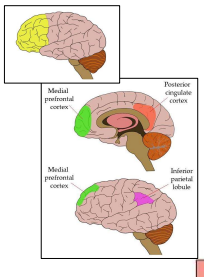
Key Brain Regions

- **Prefrontal Cortex** – Monitors self-awareness & working memory
- **Insular Cortex** – Processes emotions & detects errors
- **Default Mode Network** – Connects regions for self-reflection & awareness
  - **Medial Prefrontal Cortex (mPFC)**
  - **Posterior Cingulate Cortex (PCC)**
  - **Inferior Parietal Lobe (IPL)**
  - **Hippocampus**



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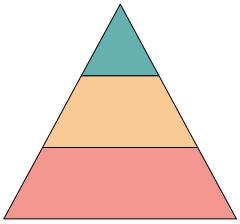
Theory: Levels of Awareness Pyramid

Anticipatory Awareness

Emergent Awareness

Intellectual Awareness



(Crosson et al., 1989)

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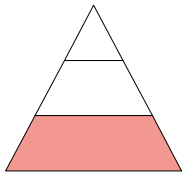
Theory: Levels of Awareness Pyramid

Intellectual Awareness
The ability to recognize and describe one's deficits with a general understanding that it may affect their ability to complete tasks.
• **Is there a problem?**



(Crosson et al., 1989)

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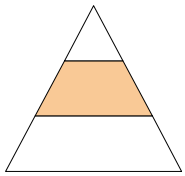
Theory: Levels of Awareness Pyramid

Emergent Awareness
The ability to recognize difficulties as they occur in real-time.
• **Why did the problem happen?**



(Crosson et al., 1989)

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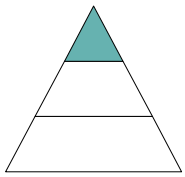
Theory: Levels of Awareness Pyramid

Anticipatory Awareness
The ability to foresee potential challenges that may arise due to one's deficits.
- **What strategy should I use?**



(Crosson et al., 1989)

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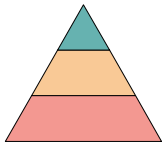
Theory: Levels of Awareness Pyramid



Intellectual Awareness
The ability to recognize and describe one's deficits with a general understanding that it may affect their ability to complete tasks.
- **Is there a problem?**

Emergent Awareness
The ability to recognize difficulties as they occur in real-time.
- **Why did the problem happen?**

Anticipatory Awareness
The ability to foresee potential challenges that may arise due to one's deficits.
- **What strategy should I use?**

ONLINE AWARENESS

(Crosson et al., 1989)

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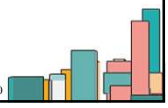
Theory: Dynamic Comprehensive Model of Awareness

- Awareness is dynamic and influenced by **internal factors** (e.g., memory, reasoning) and **external factors** (e.g., environment, task demands)
- Divides awareness into:
  - **Metacognitive Awareness (Off-Line)**: The ability to reflect on one's condition and beliefs about oneself, occurring **outside** of task performance
  - **On-Line Awareness**: The ability to monitor and adjust behavior during tasks in real-time



O'Keeffe et al., 2007 and Toglia & Kirk 2000

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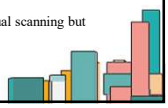
Types of Awareness

Implicit Awareness

- **Unconscious or automatic** understanding.
- Does not require deliberate thought.
- Often demonstrated through **actions or behaviors** rather than verbal acknowledgment.
  - Example: A patient with left-sided weakness only uses their right hand but insists both hands work fine, despite being left hand dominant prior to their injury.

Explicit Awareness

- **Conscious and deliberate** recognition of their deficit(s).
- Requires **verbal acknowledgment**.
  - Example: A patient openly acknowledges their difficulty with their visual scanning but may not compensate when scanning.



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Terminology Related to Awareness Deficits

Denial	Impaired Self-Awareness (ISA)	Lack of Insight
Psychological state where clients are not able to endorse changes in function because it is too emotionally painful Can co-occur with anosognosia Would react with resistance, anger, refusal to discuss the problem	Broader term used in **TBI literature** Can be used for specific impairments or general awareness Often includes insights about consequences and motivation to participate in therapy	Difficulty understanding consequences of deficits, affecting reasoning and planning. Often seen in conditions like mild brain injury, early dementia, or mental health disorders.

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Associated Conditions

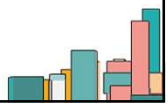
Unilateral neglect – Failure to attend to the contralesional space

Alexithymia – Reduced ability to describe emotions

Anosodiaphoria– Lack of concern about deficits, emotionally blunted

Asomatognosia – The belief that a limb is missing or not part of one's body

Misoplegia – Hatred or rejection of an affected limb



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Functional Impact of Anosognosia

- **Reduced motivation & engagement**
  - Individuals with low self-awareness show less motivation in rehab (Fleming et al., 1998).
  - May resist treatment and support, leading to worse outcomes (Katz et al., 2002; Ownsworth & Clare, 2006).
- **Limited use of compensatory strategies**
  - Less likely to apply strategies post-discharge without structured support (Ownsworth et al., 2000).
- **Increased risky behaviors at home** (Starkstein et al., 2007)
- **Less safe driving behavior** (Gooden et al., 2017)
- **Increased levels of caregiver burden and distress** (Chesnel et al., 2018; Koskinen, 1998)
- **Poorer post-discharge outcomes** (Geytenbeek et al., 2017; Hurst et al., 2020; Kelley et al., 2014):
  - Psychosocial integration
  - Vocational success
  - Independent living

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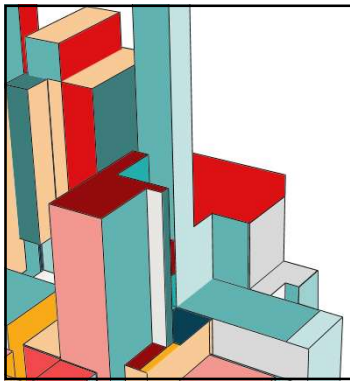

Assessment for Anosognosia

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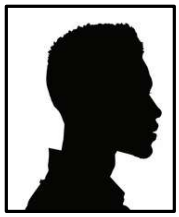
Case Example

James, a 31-year-old male, sustained a moderate-to-severe traumatic brain injury (TBI) following a motor vehicle accident (MVA) approximately 15 months ago. He was the solo driver of his vehicle and collided with a tree at high speed.

He experienced **diffuse axonal injury (DAI)** and **frontal-temporal damage**.

Following the accident, James underwent acute rehabilitation and transitioned to a **residential TBI program** where he received a minimum of **15 weekly hours of skilled PT, OT, ST, social work, TREC, and psychology services**.

He is married with 4 school-aged children. At the time of injury, he was working as a truck driver and was the **primary earner** of his household.



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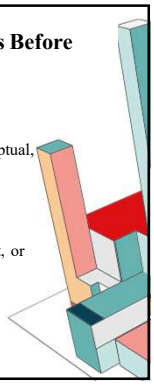
Important Points to Remember About Awareness Before Your Assessment

- Not all or nothing
- Awareness is influenced by a variety of factors: neurological, perceptual, cognitive, psychological, social, cultural
- Must be managed unique from person to person
- Awareness may **fluctuate** depending on task demands, environment, or cognitive load
- No "Gold Standard" assessment exists
- Be confident to refer to other disciplines & collaborate!



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Maintaining **therapeutic alliance** and **trust** is of highest priority

Reduced awareness does not prevent the development of TA in ABI rehabilitation.

Bieman-Copland & Dywan, 2000; Evans et al., 2008; Greenwald, 2023; Ownsworth et al., 2007, 2013; Prescott et al., 2019; Prigatano, 2005; Schönberger et al., 2006, 2007; Sherer et al., 2007

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Enhancing Therapeutic Alliance (TA)

Compassion
The clinician always keeps the client's best interests in mind and tries to see things from the client's point of view.

Partnership
The clinician and client work collaboratively, and the clinician avoids playing the role of the "expert."

Acceptance
The clinician respects the client's autonomy, potential, strengths, and perspective.

(McGrath & Schultz, 2024; Neal & Greenwald, 2023; Anderson et al., 2016; Kucheria et al., 2022; Williams & Douglas, 2022).

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Assessment is *Comprehensive*

BROAD

SPECIFIC

1. Patient perceptions of their deficits
2. Patient expectations for recovery
3. Differential diagnosis of psychological denial
4. Informant ratings
5. Functional implications or consequences
6. Presence of other phenomena
7. Modality specificity
8. Implicit and explicit awareness

9. **Identification of level of awareness**

(Blake, 2020; Dockree, O'Connell, & Robertson, 2015; Gambina et al., 2015; Gasquoine, 2016)

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Clinical Interview

Clinical Interview

1. **Patient Perceptions of Their Deficits** – The patient describes **how they believe** their condition affects them.
2. **Patient Expectations for Recovery** – The patient discusses **their perceived prognosis** and how they expect to improve.
3. **Differential Diagnosis of Psychological Denial** – The interview helps distinguish between **neurological anosognosia vs. psychological avoidance**.

How We Accomplish

- **Motivational interviewing** and **open-ended questions** about daily functioning
- **Guided reflection** on past performance vs. present abilities
- **Self-rating questionnaires**

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Self-Awareness of Deficits Interview (SADI) (Fleming et al., 1996)

Clinical Interview

Details

- **30-minute semi-structured interview** conducted by a therapist
- Assesses **self-awareness** in three key areas:
  - **Self-awareness of deficits**
  - **Functional effects of reduced awareness**
  - **Ability to set realistic goals**
- Uses a **4-point scale** *(0 = no deficit, 3 = severe deficit)*
- Higher scores indicate **greater impairment in self-awareness**
- **Maximum score = 9** (severe anosognosia)

THERAPIST Conducts
Self-Awareness Deficit Interview and Scoring

Part 1: S-A Deficits

Q: Are you any different now compared to what you were like before your accident? In what way? Do you feel that anything about you or your abilities has changed?
Alt: *Do people who know you well notice that anything is different about | you since the accident? What might they notice?*
Alt: *What do you see as your problems, if any, resulting from your injury?*
What is the main thing you need to work on/would like to get better?

Prompts:
Physical abilities (e.g., move arms/legs, balance, vision, endurance)?
Memory/awareness?
Concentration?
Problem solving, decision-making, organizing and planning things?
Controlling behavior?
Communication?
Getting along with other people?
Has your personality changed?
Are there any other problems that I haven't mentioned?

Score: CIRCLE 1

0	Cognitive/psychological problems where relevant are reported by patient/client in response to general questioning, or readily acknowledged in response to specific questioning.
1	Some cognitive/psychological problems reported, but others denied or minimized. Patient/client may have a tendency to focus on relatively minor physical changes (e.g., scars) and acknowledge cognitive/psychological problems only on specific questioning about deficits.
2	Physical deficits only acknowledged; denies, minimizes, or is unaware of

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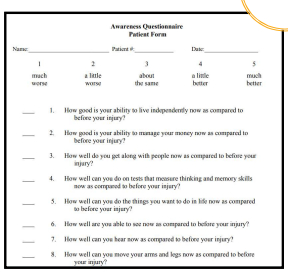
Awareness Questionnaire (AQ) (Sherer et al., 1998, 2003)

Clinical Interview

Purpose:
- Measures **explicit** self-awareness of deficits in individuals with brain injury, stroke, or neurocognitive disorders.
- Compares self-ratings of functional abilities with caregiver or clinician ratings.

Structure:
- 17–20 questions covering physical, cognitive, and functional abilities.
- Patients rate their own abilities on a Likert scale (e.g., much worse → much better)

Scoring & Interpretation:
- Higher discrepancy between patient and caregiver/clinician ratings indicates reduced awareness.
- Patterns in underestimation vs. overestimation of ability can guide treatment focus.
- Used to track changes in awareness over time.



Awareness Questionnaire
Patient Form

Name:_____ Patient #:_____ Date:_____

1	2	3	4	5
much worse	a little worse	about the same	a little better	much better

1. How good is your ability to live independently now as compared to before your injury?
2. How good is your ability to manage your money now as compared to before your injury?
3. How well do you get along with people now as compared to before your injury?
4. How well can you do on tests that measure thinking and memory skills now as compared to before your injury?
5. How well can you do the things you want to do in life now as compared to before your injury?
6. How well are you able to see now as compared to before your injury?
7. How well can you hear now as compared to before your injury?
8. How well can you move your arms and legs now as compared to before your injury?

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Differential Diagnosis of Psychological Denial

Clinical Interview

Table 9–3. Responses to Feedback Based on Mechanism of Unawareness

	Cognitive Deficit (impairments of memory, reasoning)	*Neurologic Injury (anosognosia)*	*Psychological Denial of Deficit*
Cognitive response	Surprise, confusion	Rationalization or minimization	Refute the feedback; may attribute the problem to someone else or to the environment
Affective response	Increased concern	Neutral or blunted response; perplexed; indifferent	Increased arousal and anger (may eventually develop into depression)
Behavioral response	Actively use feedback (although may be transient or inconsistent)	Passive response; may momentarily try to understand	Intolerant of feedback; actively resist it or discount it; irritated, agitated responses

Source: Based on Giacino and Cicerone (1998).

Refer!

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Clinical Interview Summary

James

1. Patient Perceptions of Their Deficits – Completed the Awareness Questionnaire (AQ) and reported that everything is the same since his injury. Acknowledges "some memory issues" but insists they do not impact his daily life.

2. Patient Expectations for Recovery – Expects full recovery over time with minimal effort. Believes he does not need external strategies or long-term therapy. Expects to be working full time within a month.

3. Differential Diagnosis of Psychological Denial – Per collaboration with neuropsychologist, confirmed **neurological anosognosia**, not psychological avoidance.

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Comparisons of Self-Ratings with Informant Ratings

Comparisons of **Self-Ratings** with **Informant Ratings**

4. **Informant Reports and Ratings** – Caregivers and clinicians report **awareness discrepancies**
5. **Functional Implications or Consequences** – Care team to help identify **real-world safety concerns**
6. **Presence of Other Phenomena** – Informants highlight **co-occurring cognitive, emotional, or behavioral issues** that the patient may not recognize or acknowledge.

How We Accomplish

- **Awareness Questionnaire (AQ)** or **Patient Competency Rating Scale (PCRS)** informant forms
  - Comparing **patient self-ratings vs. caregiver ratings vs. clinician ratings**
- **Clinician and caregiver reports** of **daily difficulties** (e.g., medication management, financial responsibility).

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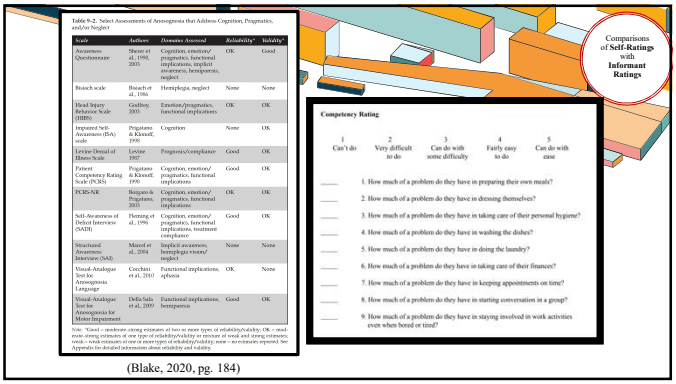

Table 9–2. Select Assessments of Anosognosia that Address Cognition, Pragmatics, and/or Neglect

Scale	Authors	Domains Assessed	Reliability*	Validity*
Awareness Questionnaire	Sherer et al., 1998, 2003	Cognition, emotion/pragmatics, functional implications, implicit awareness, hemiparesis, neglect	OK	Good
Bisiach scale	Bisiach et al., 1986	Hemiplegia, neglect	None	None
Head Injury Behavior Scale (HIBS)	Godfrey, 2003	Emotion/pragmatics, functional implications	OK	OK
Impaired Self-Awareness (ISA) scale	Prigatano & Klonoff, 1998	Cognition	None	OK
Levine Denial of Illness Scale	Levine 1987	Prognosis/compliance	Good	OK
Patient Competency Rating Scale (PCRS)	Prigatano & Klonoff, 1998	Cognition, emotion/pragmatics, functional implications	Good	OK
PCRS-NR	Borgaro & Prigatano, 2003	Cognition, emotion/pragmatics, functional implications	OK	OK
Self-Awareness of Deficit Interview (SADI)	Fleming et al., 1996	Cognition, emotion/pragmatics, functional implications, treatment compliance	Good	OK
Structured Awareness Interview (SAI)	Marcel et al., 2004	Implicit awareness, hemiplegia vision/neglect	None	None
Visual-Analogue Test for Anosognosia Language	Cocchini et al., 2010	Functional implications, aphasia	OK	None
Visual-Analogue Test for Anosognosia for Motor Impairment	Della Sala et al., 2009	Functional implications, hemiparesis	Good	OK

Note: *Good = moderate-strong estimates of two or more types of reliability/validity; OK = moderate-strong estimates of one type of reliability/validity or mixture of weak and strong estimates; weak = weak estimates of one or more types of reliability/validity; none = no estimates reported. See Appendix for detailed information about reliability and validity.

(Blake, 2020, pg. 184)

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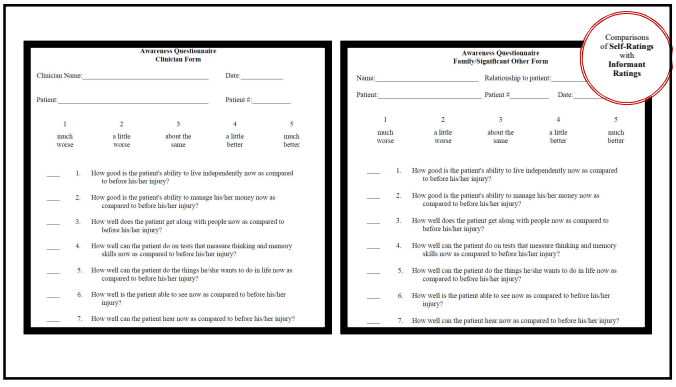

Comparisons of **Self-Ratings** with **Informant Ratings**

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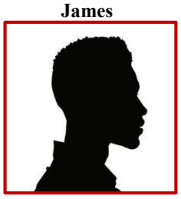
Comparisons of Self-Ratings with Informant Ratings

James



4. Informant Reports and Ratings – Caregiver (wife) and clinicians report **major discrepancies** in James' awareness—he believes he is independent but requires **constant external support** from therapy and residential teams.

5. Functional Implications or Consequences – Therapy team reports **safety concerns** due to **lack of initiation, poor memory, and failure to use external supports.**

6. Presence of Other Phenomena - Wife confirms **confabulation,** psychology reports **anosodiaphoria (lack of concern), and emotional indifference** to challenges in therapy.

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Comparisons of Self-Ratings with Objective Scores

7. **Modality Specificity** – Awareness is assessed across **different domains**
8. **Implicit (**demonstrated through actions) **& Explicit Awareness** (verbal acknowledgment)

How We Accomplish

- **Standardized testing**
- **Behavioral observations during functional structured tasks** to assess **self-monitoring**, **error recognition**, and **strategy use**.
- **Self-rating vs. task performance comparisons** (e.g., "How many details do you think you will remember?" → then compare with actual recall).

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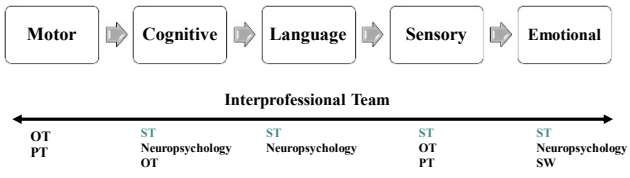
Modality Specificity



Interprofessional Team

OT PT	ST Neuropsychology OT	ST Neuropsychology	ST OT PT	ST Neuropsychology SW

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Implicit and Explicit Awareness

Level of Awareness	Assessment Approach
Implicit Awareness (Adjusts behavior but does not acknowledge deficits)	• Have the patient complete a **real-life task** • Observe whether they adjust behavior for their deficit • If they adjust behavior but deny impairment, it may indicate implicit awareness only.
Explicit Awareness (Can verbalize challenges / deficits)	• Use **guided interviews** and **questionnaires** • Compare their responses to caregiver reports or observed behavior. • If they can accurately describe challenges, it indicates explicit awareness (must be assessed across modalities!)

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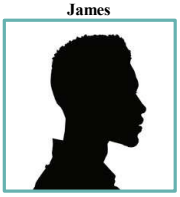
Comparisons of Self-Ratings with Objective Scores

James



7. Modality Specificity –
- **Motor**: Unable to dual task, reports of back pain, needs reminders on etiology of pain
- **Cognitive/Language**: James performs worse than he perceives on cognitive testing. RBANS suggest very low scores in memory and attention, average in language and visuospatial skills. Requires significant support for all iADLs
- **Sensory**: No sensory issues, does exhibit severe auditory comprehension deficits.
- **Emotional**: Occasional frustration when confronted with errors but generally **lacks emotional response** to challenges. Confabulation on injury details change from week to week.

8. Implicit & Explicit Awareness –
- **Explicit:** Denies deficits most days, claims memory has been **"terrible since high school"** but insists it does not impact daily life.
- **Implicit:** Fails to initiate strategies but **sometimes follows external cues when prompted.**

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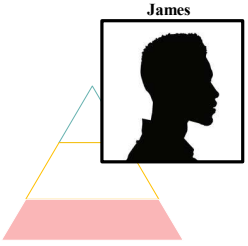
Identification of Level of Awareness

James



9. Identification of Level of Awareness (for SLP scope of practice)

• James presents **intellectual awareness only in the cognitive domain**—he knows he **had a brain injury and has some memory problems**, but **he does not recognize or appreciate the real-world consequences of these deficits.**

• He **does not adjust behavior**, leading to **consistent challenges in task initiation, schedule management, and memory-dependent activities.**

• This **lack of emergent and anticipatory awareness** creates barriers to independent functioning.

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Summary - Assessment

BROAD

SPECIFIC

1. Patient perceptions of their deficits
2. Patient expectations for recovery
3. Differential diagnosis of psychological denial
4. Informant ratings
5. Functional implications or consequences
6. Presence of other phenomena
7. Modality specificity
8. Implicit and explicit awareness

9. **Identification of level of awareness**

(Blake, 2020; Docktree, O'Connell, & Robertson, 2015; Gambina et al., 2015; Gasquoine, 2016)

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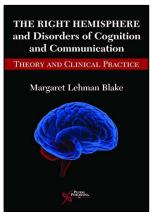
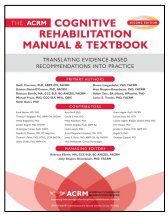
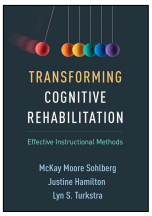
Treatment for Anosognosia







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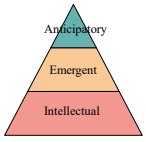
Treatment Considerations: Big Picture

Meet Patients at Their Current Awareness Level

- Avoids Resistance
- Improves Engagement
- Promotes Gradual Awareness Growth
- Reduces Caregiver Burden



(Prigatano, 2005, 2014; Sherer et al., 2007; Schönberger et al., 2006, 2007; Ownsworth et al., 2007, 2013)

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General Treatment Guidelines

- Motivational Interviewing
- Education & Feedback
- Experiential Learning
- Metacognitive Strategies
- Group Therapy

(Sohlberg et al., 2023; Blake, 2018; Ramsey & Blake, 2020)

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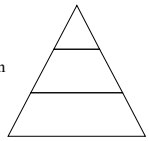
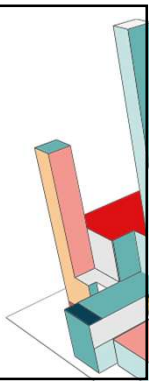
Treatment – No Awareness

Unable to recognize any deficit or problem

- Establishing trust
- Environmental modifications and supervision support
- Resist confrontation
- Redirect as necessary
- Slowly provide **education**





Our role isn't to force awareness—it's to create a safe space where they feel supported enough to start recognizing challenges and accepting help.

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No Awareness → Intellectual Awareness

Current	Signs They Are Ready to Progress	How to Test Readiness
No Awareness (Unable to recognize any deficit or problem)	• Shows some acceptance of structured routines or external supports, even if they don't acknowledge deficits. • Begins to engage in discussions about tasks, even if they do not recognize difficulties. • Starts to show frustration or confusion when tasks don't go as expected, which may indicate a growing awareness that something is different. • Occasionally questions why they are in therapy or asks about their condition, signaling curiosity.	• Use gentle education and indirect feedback: Provide factual observations without confrontation. • Continue to introduce simple external supports (e.g., a checklist or schedule) and observe if they accept or resist it. • Provide structured opportunities to compare past and current abilities: Ask neutral questions like, "How do you think that went?" • Observe emotional responses: If they start reacting to task difficulty (e.g., frustration, hesitation), they may be starting to recognize a problem exists.

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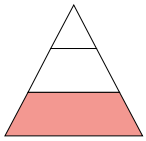
Treatment – Intellectual Awareness

Knows there is a problem, but can't identify when it happens



Key elements:

- Establishing trust
- **Introduce motivational interviewing techniques**
- Repetitive **education**
- Labeling and terminology: label unawareness as a problem!
- Use of external compensatory strategies
- Providing **feedback** following any manifestation of problems
- **Group therapy**

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Motivational Interviewing

- A **person-centered** and directive counseling approach.
- MI **increases readiness for change** by helping clients to examine and possibly even **resolve their ambivalence about change** (Rollnick & Miller, 1995).
- MI is particularly useful **for clients with poor self-awareness** due to either anosognosia or denial (Medley & Powell, 2010)

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Motivational Interviewing

What is the goal?

- Set the stage for treatment
- Help the client reflect on desires and encourage them to engage in "change talk"

How does it work?

- Ask for client permission to give information on how they are doing
- Offer feedback
- Request client response to feedback, follow with open-ended questions, affirmations, reflections and summaries

(Sohlberg, Hamilton, & Turkstra, 2023, p. 37)

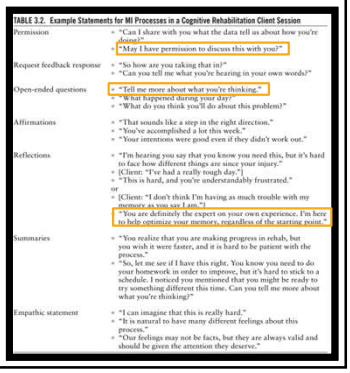

TABLE 3.2. Example Statements for MI Processes in a Cognitive Rehabilitation Client Session

Permission	◦ "Can I share with you what the data tell us about how you're doing?" ◦ "May I have permission to discuss this with you?"
Request feedback response	◦ "So how are you taking that in?" ◦ "Can you tell me what you're hearing in your own words?"
Open-ended questions	◦ "Tell me more about what you're thinking." ◦ "What happened during your day?" ◦ "What do you think you'll do about this problem?"
Affirmations	◦ "That sounds like a step in the right direction." ◦ "You've accomplished a lot this week." ◦ "Your intentions were good even if they didn't work out."
Reflections	◦ "I'm hearing you say that you know you need this, but it's hard to face how different things are since your injury." ◦ [Client: "I've had a really tough day."] ◦ "This is hard, and you're understandably frustrated." or ◦ [Client: "I don't think I'm having as much trouble with my memory as you say I am."] ◦ "You are definitely the expert on your own experience. I'm here to help optimize your memory, regardless of the starting point."
Summaries	◦ "You realize that you are making progress in rehab, but you wish it were faster, and it is hard to be patient with the process." ◦ "So, let me see if I have this right. You know you need to do your homework in order to improve, but it's hard to stick to a schedule. I noticed you mentioned that you might be ready to try something different this time. Can you tell me more about what you're thinking?"
Empathic statement	◦ "I can imagine that this is really hard." ◦ "It is natural to have many different feelings about this process." ◦ "Our feelings may not be facts, but they are always valid and should be given the attention they deserve."

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Education and Feedback

- Education & feedback should be **structured** and **supportive**.
- Use **visual aids, video reviews**, and **guided questioning** to improve self-awareness.
- Caregivers play a key role in reinforcing insights gained in therapy.
- Feedback should **always encourage reflection** and **problem-solving** rather than just correction.

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Education and Feedback

Strategy	Implementation	Reflection Strategy
Structured Education on Cognitive Deficits	Use **visual aids, brain models, and simple explanations** to educate patients on their cognitive impairments.	Ask: "What new information did you learn about your condition today?"
Errorless Learning	Guide patients through **structured, success-driven tasks** to reduce frustration and resistance.	Discuss: "Did following step-by-step instructions help you succeed?
Video Feedback & Self-Evaluation Schmidt et al. (2013, 2015); Flemming et al. (2020)	Record therapy sessions and **review them with the patient** to discuss **strengths and areas for improvement**. **Video + Verbal feedback outperforms verbal-only or experiential-only in improving self-awareness.**	Review: "What did you notice about your performance?
External Feedback & Caregiver Involvement	Engage **caregivers** to **reinforce feedback at home** and in **real-world settings**.	Reflect: "How did feedback from others change your understanding of your abilities?"

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Group Therapy

INCOG 2023, EXEC #4
Recommendation: "Group-based interventions should be considered for remediation of executive and problem-solving deficits after traumatic brain injury."

- Additionally, any sort of stroke or brain injury support group will support awareness passively and should be considered

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Intellectual → Emergent

Current	Signs They Are Ready to Progress	How to Test Readiness
Intellectual Awareness (Knows they have a problem but doesn't recognize it in real-time)	- Begins to acknowledge specific difficulties when prompted (e.g., "I think my memory isn't great"). - Starts to **accept feedback** about deficits rather than rejecting or minimizing them. - Shows **increased curiosity** about their condition and asks about strategies.	- Use **structured reflection**: Ask after a task, "What was difficult about that?" and check if they **recognize errors**. - Compare **self-ratings vs. clinician ratings** over multiple sessions to see if self-awareness is improving. - Use **video playback or journaling** to help them reflect on mistakes.

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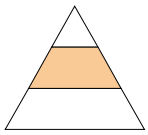
Treatment – Emergent Awareness

Recognizes the deficit in the moment, but only after it happens

Continue same principles for treatment in intellectual awareness, but add:

- Full integration of **experiential learning**
- Introduction to **metacognitive strategies**



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Experiential Learning

- A broad **learning theory** where individuals gain knowledge through **direct experience, reflection, and active experimentation** (Kolb, 1984)
- With experiential learning, we place our patient in a structured task where they can experience the difficulty firsthand.
- *Predict-Perform-Evaluate (PPE) Model* (Cheng & Man, 2006)

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Predict-Perform-Evaluate (PPE) Worksheet

Step 1: Predict
Before starting the task, answer the following:
- What do you think this task will involve?
- How difficult do you think this task will be for you?
- What challenges do you think you might face while doing this task?
- What strategies will you use to complete the task successfully?

Step 2: Perform
During the task, use the space below to note observations:
- Did anything unexpected happen while completing the task?
- Did you use the strategies you planned? Why or why not?
- Were there moments when you noticed challenges? How did you handle them

Step 3: Evaluate
After completing the task, reflect on your performance:
- How do you think you did compared to your initial prediction?
- What parts of the task went well?
- What parts were challenging?
- What could you do differently next time to improve?
- What strategies will you use in the future to help with similar tasks?

Therapist Notes & Feedback:
Final Reflection

Overall, how much did this exercise help you understand your abilities? Not at all | A little | Somewhat | A lot | Extremely

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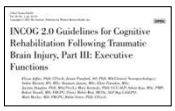
Metacognitive Strategies

INCOG 2.0 EXEC #2: Metacognitive strategy instructions (e.g., goal management training, plan-do-check-review, and prediction performance) **should** be used with individuals with TBI

- Common elements of all metacognitive strategies are
  - **Self-monitoring**
  - **Incorporating feedback into future performance**
  - **Emotional self-regulation training**
  - Level A evidence


INCOG 2.0 Guidelines for Cognitive Rehabilitation Following Traumatic Brain Injury, Part III: Executive Functions

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Emergent → Anticipatory

Current	Signs They Are Ready to Progress	How to Test Readiness
Emergent Awareness (Recognizes deficits after they occur but doesn't anticipate them yet)	- Begins to **self-correct** when errors are pointed out. - Can **reflect on** their mistakes and explain what went wrong. - Expresses **frustration** with their own performance, showing they are aware of difficulties in real time.	- Use **pause-and-reflect techniques**: Have them predict how well they will do **before** a task, then reflect **after**. - Increase **real-world functional tasks** (e.g., meal planning, medication management) and observe whether they **acknowledge mistakes**. - Introduce **structured error-awareness training**, such as asking, "What would you do differently next time?"

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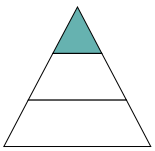
Treatment – Anticipatory Awareness



Recognizes when problems will happen and can take preventative action

Continue same principles for treatment in intellectual and emergent awareness, but add:

- Independent use of strategies
- Increased complexity of problem-solving tasks
- Utilize role-playing and scenarios to reinforce anticipatory planning (e.g., handing distractions or adjusting plants)
- Gradually reduce clinician support, allow the patient to use and adjust strategies independently
- Clinician shifts role as postures as a 'coach'

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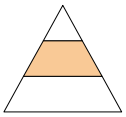

James – Treatment

At the start of treatment, he demonstrated **intellectual awareness** (could state that he had a brain injury) but **did not recognize when his deficits impacted daily life but did endorse some memory challenges.**

Goals of Treatment:
•Establishing trust with caregivers and clinicians
•Education on his brain injury and providing gentle, structured feedback.
•Strengthen **emergent awareness** (recognizing deficits in real time)
•Improve **functional use of external memory strategies**
•Provide **family training** to support a safe discharge

Final Outcomes & Clinical Implications:
✓ **Progressed to emergent awareness** in the cognitive domain – Recognized deficits in **specific moments** but **struggled with consistency and carryover**.
✓ **Vocational therapy set up for continued success** – 3 months after discharge, James began **working part-time** in a supported setting and is still seeing neuropsychology for sessions.

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Summary: Determining When to Move a Patient to the Next Level of Awareness

- Progressing a patient from **intellectual → emergent → anticipatory awareness** requires **structured observation, feedback mechanisms, and functional outcomes**.
- We (clinicians) are always working forward and backwards within levels
- Moving too quickly can lead to **frustration and disengagement**
- Staying too long at one level can **limit progress**

When NOT to Move to the Next Level:
✗ If the patient **relies entirely on clinician feedback** and **does not recognize** deficits independently.
✗ If they **show resistance** to discussing errors or **reject feedback**.
✗ If their **functional performance declines** after removing external supports.
✗ If caregivers report **no change in real-world behaviors**, even if progress is seen in therapy.

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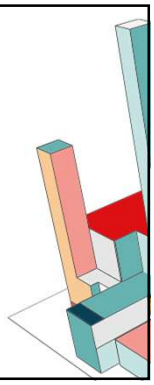
Biggest Takeaways

- Anosognosia is a complex, multifaceted disorder
  - It looks very different from person to person
  - "If you've met one person with anosognosia, you've met one person with anosognosia."
- Assessment is comprehensive and interprofessional
- Treatment needs to remain flexible and person-centered
- Maintaining a therapeutic alliance is important for outcomes



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Final Questions

1. How do you plan to integrate today's seminar insights when assessing or treating clients with anosognosia in your practice?
2. After participating in the seminar, do you feel more equipped to handle cases involving anosognosia?
3. On a scale from 1 to 10, how would you rate your current confidence in assessing and treating awareness deficits, as compared to before the seminar?

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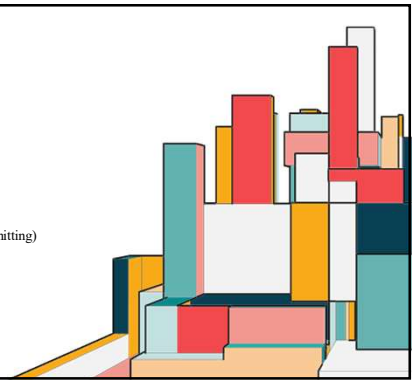
THANK YOU!

Questions are welcomed! (time permitting)



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REFERENCES

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