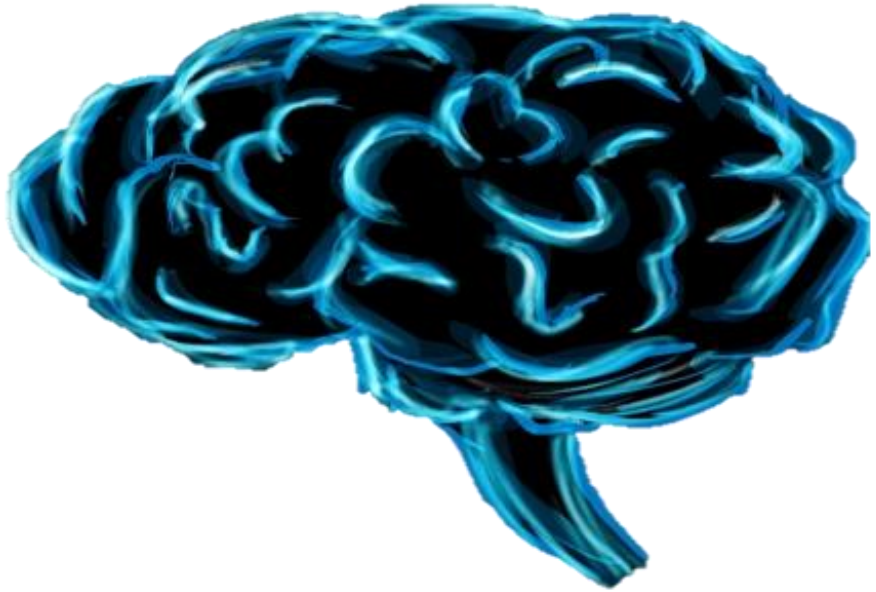
Success Rehabilitation, Inc.



NEUROLOGICAL MANIFESTATIONS OF PSYCHOLOGICAL SYMPTOMS: A CASE STUDY

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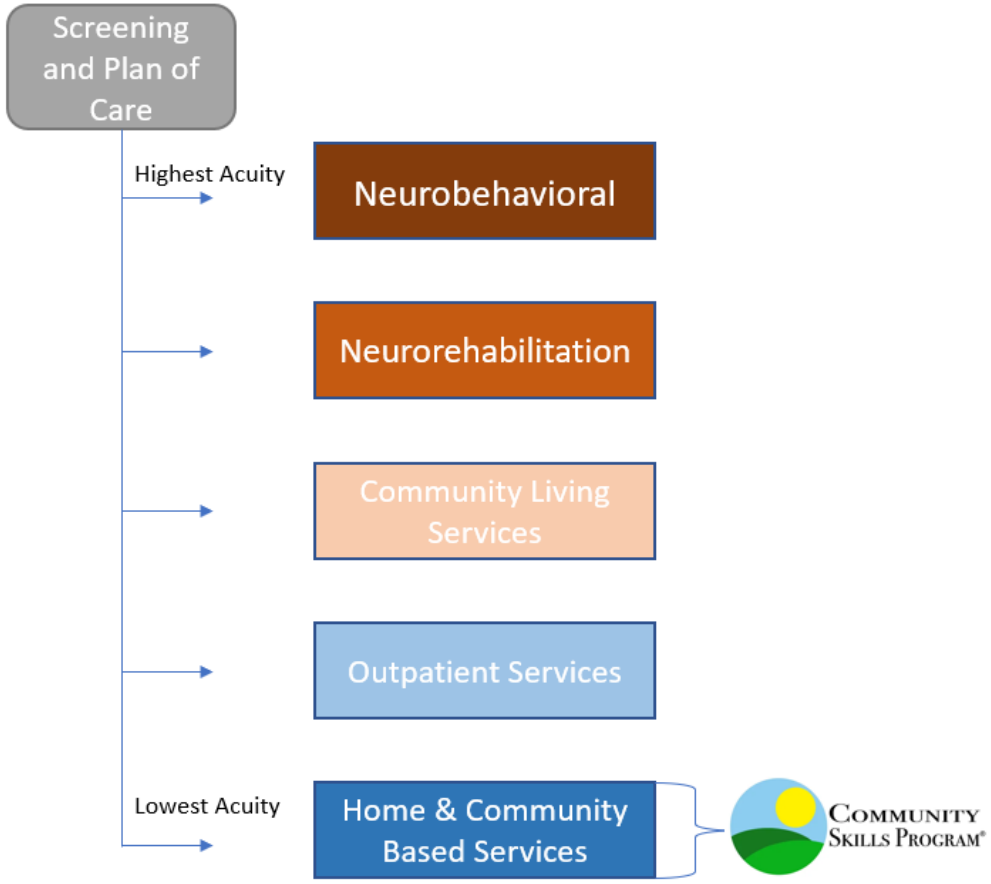
Overview of Presenter

- Licensed Social Worker through the State of Pennsylvania, currently pursuing Doctorate at Millersville University with a focus on elicitin posttraumatic growth and an enhanced social cognition in individuals with a TBI as topic area for dissertation.
- Certified Brain Injury Specialist Trainer (CBIST) and Certified Clinical Trauma Professional (CCTP)
- Employed at Success Rehabilitation for the past 18 years in various roles such as Case Management (3 years), Psychotherapist (14 years), Director of Client Services (1 year plus)
- Presented at BIAMD Conference in 2007 with the topic of Peer Mentoring and TBI, BIADE & BIAPA Conferences in 2018 on Neurological Manifestation of Psychological Symptoms: A Case Study, and BIAPA Conference in 2022 on A Journey of Hope: Connecting Past, Present, and Future Cognitive Therapeutic Modalities for Brain Injury - A Case Study.

Learning Objectives

- To identify what is a non-epileptic seizure.
- Understand the role of psychological trauma & the role of psychotherapy and cognitive rehabilitation therapy (CRT) with an individual with a TBI & non-epileptical seizure.
- Outline the importance of a person's quality of life with non-epileptical seizures and a TBI.

Organization Overview



Founded in 1990, Success Rehabilitation is a leading provider of comprehensive rehabilitation services spanning the continuum of post-acute care in brain injury rehabilitation.

Residential and outpatient services are located in Bucks County, Pennsylvania.

Home & Community Based Services offered in New Jersey and central, southeast, southwest in Pennsylvania.

Case Study

•Sam is a 50 year old Caucasian male. He was diagnosed with a brain injury in September 1991 after a seizure episode and assault in Central Park, NY. MRI showed anoxic destruction of the hippocampus with some frontal lobe damage as well. He was only 18 years old at the time of injury. Years following his injury, he was diagnosed with non-epileptical seizures. He currently resides in a post acute residential brain injury rehabilitation.

•History: no children, never married, strong religious faith, high school graduate, substance abuse history pre-injury, diagnosed with depression and learning disability in teenage years, strong family connections with immediate family, acknowledged abuse as a child.

Non-Epileptical Seziures:

General Info

- Research shows that 1 in 5 people who are admitted to epileptic centers are actually affected by NES and not epilepsy (Devinsky, 2013).

- Seizures that look like epilepsy but do not demonstrate abnormal electrical activity, as measured by an EEG. They are the manifestation of psychological distress (Devinsky, 2013)

- By definition, these are physical manifestations of a psychological disturbance which are type of Somatoform Disorder called Conversion Disorder (Epilepsy Foundation)

  a. Somatoform Disorders are those conditions suggestive of a physical disorder, but upon examination cannot be accounted for an underlying physical condition.

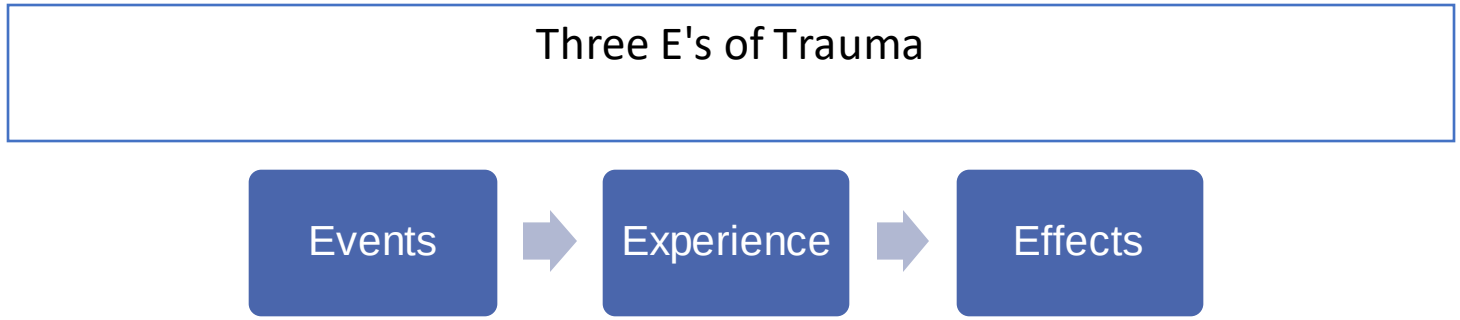
  b. Conversion Disorder is a Somatoform Disorder that is defined as physical symptoms cause by psychogenic conflict, unconsciously converted to resemble those of a neurological disorder.

Non-Epileptical Seziures:

General Info

- A specific traumatic event (physical/sexual abuse, assault, severe trauma, incest, divorce, death, great loss or sudden change) can cause/trigger non-epileptical seizures (Devinsky, 2013).

- Essentially, the conscious mind splits off from the 'here and now' in order to protect itself.



www.samhsa.gov

NON-EPILEPTICAL SEIZURES – COMMON SYMPTOMS

Cognitive

- No confusion afterwards
- Can be distracted by loud noises or fear of danger
- Periods of talking during episode

Physical

- Uncontrollable body movements
- Thrusting pelvic movements
- Asymmetrical limb movements
- Movements may start & stop
- Side to side head movements
- Closed eyes during event
- Crying/Spitting episodes

Medical

- Increased Sweating
- No total loss of consciouness
- Heart palpitations
- Shakiness
- Convulsions
- Difficulty breathing

Epilepsy Foundation

NON-EPILEPTICAL SEIZURES:

DIAGNOSIS

- Refer to a neurologist to rule out epileptic vs. non-epileptic seizures. Video EEG to record observations and electrical activity of the brain. Disrupted brain activity is diagnosed as epilepsy and non-epileptic shows no changes in brain activity

- Personal History – psychological development, mental health (depression or other psychiatric conditions), subject to stress and/or trauma in the past, one or more head injuries, substance abuse

- Length of seizures can be over 10 minutes in length and last up to 20-30 minutes

- Not controlled by anti-epileptic drugs

- Psychiatrist who also specializes in brain injury to work on anxiety/stress symptom management

(Lesser, 2003)

NON-EPILEPTICAL SEIZURES:

TREATMENT

- Psychiatry – different forms of anti-anxiety and anti-depressant medications

- Psychotherapy – looks at how you think about things, how NES affects you physically and emotionally, breaks down the stressors and trauma to focus on changing your thought patterns and behavior

- Cognitive Rehabilitation Therapy (CRT) - works on the attainment and re-attainment of cognitive skills such as: attention and concentration, processing and understanding information, memory, communication, planning and organization, reasoning, problem solving, decision making, judgement, and impulse control

(Lesser, 2003)

- Common first reactions are one of disbelief, denial, and confusion.
- "He/She is faking it. This isn't real. This is just a way for he/she to get out of things and avoid life. I don't believe you. You deliberately put this on."
- Need to focus on taking shame/blame/stigma away. Instilling hope!
- Shift in research from calling these "Pseudo Seizures" and focusing more on language like "Non-Epileptical Seizures" or "Psychogenic Non-Epileptical Seizures"
- Educating people that this is a real condition that arises in response to real stressors. The seizures are not consciously produced and are not the individual's fault.

(Myers, 2018)

NON-EPILEPTICAL SEIZURES:

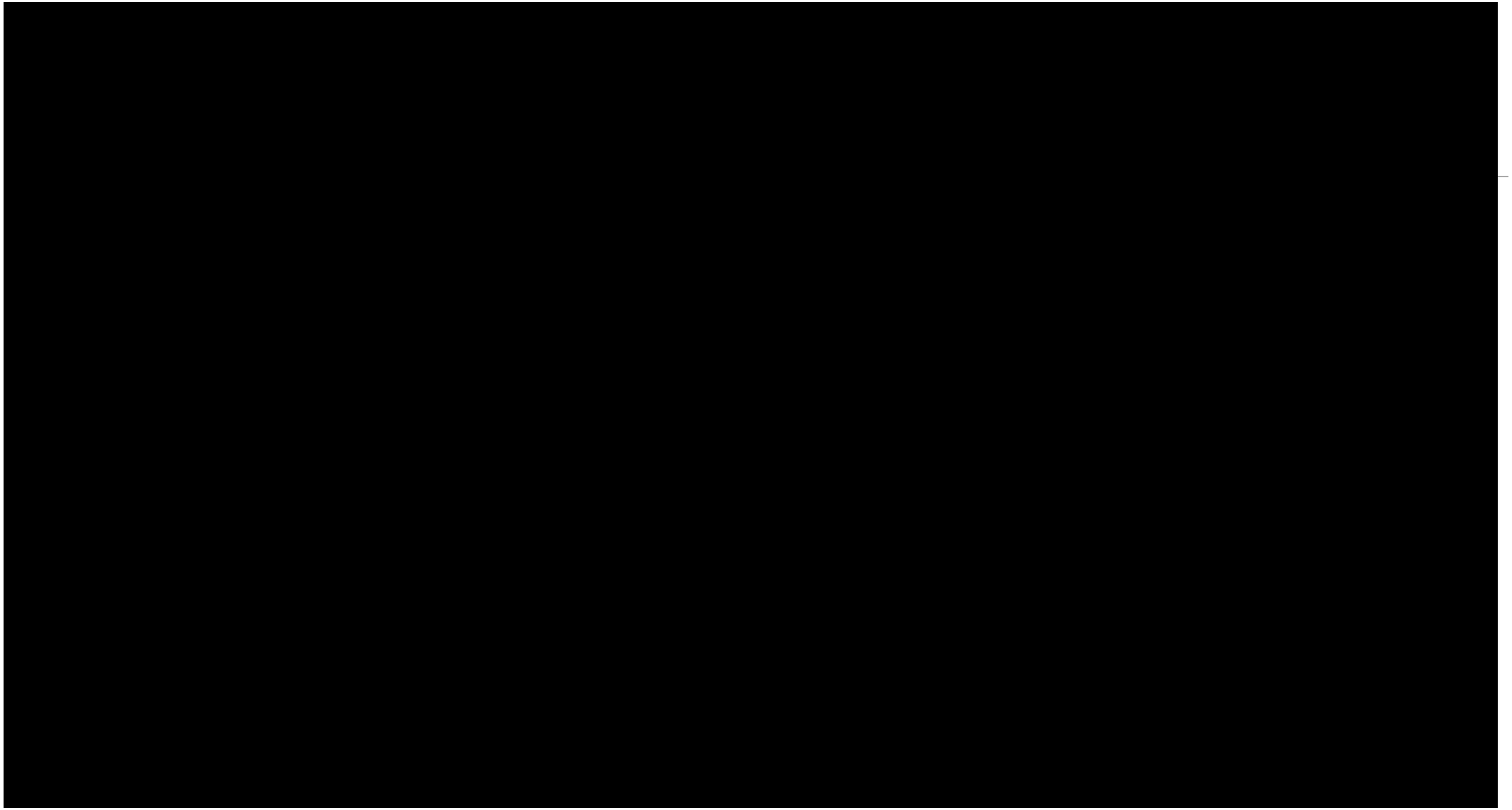
RESEARCH

- Several studies showed the risk of NES increases when there are antecedents of sexual abuse, physical abuse, presence of severe family stressors, after neurosurgery, and traumatic brain injury (Hudak et al., 2004).
- The vulnerability of the brain after a traumatic insult is often cited as a cause (Westbrook et al., 1998).
- Many studies correlate the probability of developing seizures with the severity of the head injury suggesting the NES onset is more common after mild TBI and epileptic seizures after more severe TBI (Barry et al., 1998).

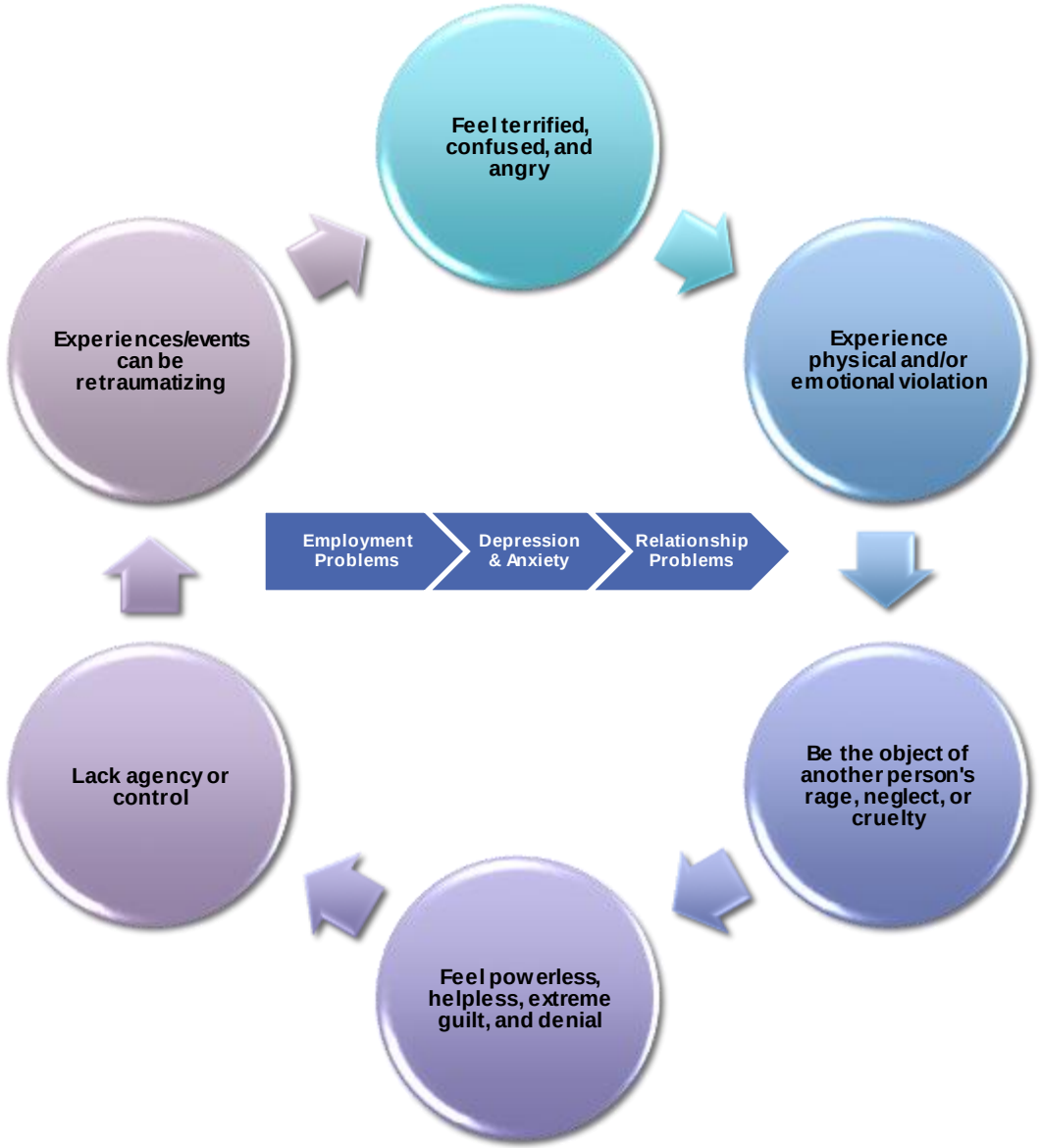
NON-EPILEPTICAL SEIZURES:

RESEARCH

- Estimated up to 90% of those with NES have a history of psychological trauma (Reuber, 2008).
- A 2004 review of 17 NES studies found that 44-100% of NES patients had suffered some form of general trauma, while 23-77% had a history of physical or sexual abuse (Fiszman et al., 2004).
- A recent study performed by Dr. Lorna Myers, et al found that almost 74% of the people sampled had at some point suffered some form of trauma (Myers et al., 2013).
- Myers, et. al (2012) conducted a study of 62 patients with NES. They were given a battery of test that assessed anger expression, mood, personality traits, and quality of life. The study showed a strong correlation between higher anger and poorer quality of life as well as depression and a tendency to look at things cynically. Poorer quality of life was best predicted when there was a history of trauma.



ROLE OF PSYCHOLOGICAL TRAUMA



(Adapted from Butler, Critelli, & Rinfrette, 2011)

MEICHENBAUM'S CLOCK METAPHOR

- 12 o'clock – External and Internal Triggers
- 3 o'clock – Primary and Secondary Emotions
- 6 o'clock – Thinking Process
- 9 o'clock – Behavior and Resultant Consequences

MEICHENBAUM'S CLOCK METAPHOR

Sam's External Triggers – Circumstances of assault and injury, reminders of early childhood abuse, other people's injuries or negative experiences act as triggers, environment around him

Sam's Internal Triggers – Reminders of past traumatic events, anniversaries, situational reminders

Therapist Response - How does that make you feel? Examine those underlying beliefs. Connect with staff on ways to support/pre-set individual. Redirect attention to non-threatening features. Identify trusted people in individual's life.

MEICHENBAUM'S CLOCK METAPHOR

Sam initially reported primary feelings of feeling stunned, shocked, disbelief, emotionally numb, angry, enraged, anxious, shamed, humiliated, overly prideful, devastated

Sam's secondary feelings reported were feelings of longing, yearning, loneliness, powerless, helpless, hopelessness, sense of loss, lack of accomplishment

Therapist Response – What are you doing with these feelings? Increase awareness around emotions. Explore what the impact/toll/price is for having these feelings. Consider pros and cons of behaviors that could follow expressed feelings. Validate thoughts. Identify ways to cope with identified emotions.

MEICHENBAUM'S CLOCK METAPHOR

Sam's Thought Process:

Rumination of loss, anger, anxiety
Difficulty accepting feedback
Avoidance of feelings
Denial that anything happened
Inability to envision his future
Inability to see that he is in control of himself
All or nothing thinking
Mistrusts others
Distortion of what happened

MEICHENBAUM'S CLOCK METAPHOR

Therapist Response –

"Just like your body, your mind is equipped with a means of healing itself. If you have a physical scar, it is best to leave it alone and not keep interfering with it as this will slow down the healing process. So, it is with your mind after trauma. Your intrusive thoughts and symptoms are like a scar, and it's best to leave them to their own devices. Do not interfere with them by worrying or ruminating in response to them, or by avoiding or pushing thoughts away. You must allow the healing process to take care of itself and gradually the scar will fade."

(Wells et al., 2008)

MEICHENBAUM'S CLOCK METAPHOR

Sam's Behavior -

Increased anger, agitation, posturing, loud tone/volume

Inability to rationalize

Difficulty reinvesting into his life

Challenges of accepting new thoughts and ideas and/or redirecting thoughts

Non-epileptical seizures can occur

Therapist Response – Offer break from session to re-group. Direct focus to individual's behavior and note what you are seeing. If non-epileptical seizure occurs, remind individual they are safe and to breathe. Distract…count backwards from 100, start reading anything, pick a topic and keep conversation going, singing, etc.

GOAL OF MEICHENBAUM'S CLOCK METAPHOR

Psycho-education – can 'break down' and identify where their behavior starts to become 'cyclical'

Exploration and identification with feelings

Begins the process of collecting 'data'

Identifies ways to cope and break the cycle of NES from occurring

Safe space to process for the individual

CRT STRATEGIES:

EPISODE LOGS

- Empower individual to realize they can play a major role in the process of recovery

- Provide with a notebook or an electronic version of a notebook, whichever the individual feels will work best for them

- Log the following data:

1) Where were you when the episode started?
2) What happened immediately before the episode?
3) What were you thinking?
4) What were you feeling?
5) Were you/are you stressed about something?
6) Process entries with individual in session and help them to discover their triggers for successful community integration.

(Myers 2018)

CRT STRATEGIES:

EPISODE LOGS SAMPLE

- Sam had been seizure free for a few months leading up to the Thanksgiving and Christmas holidays. In between Thanksgiving and Christmas, Sam's seizures began to occur on a weekly basis. As soon as each seizure was over, he pulled out his episode log and recorded what he could recall.

- **Where were you when the episode started?** *Getting ready for the day in my apartment.*

- **What happened immediately before the episode?** *Rough night sleeping, counting down the days till my Christmas visit.*

- **What were you thinking?** *When I got up, I looked at the calendar and saw the dates were slowly getting closer to 12/25. It started to get me thinking about all the family I would be seeing and have to interact with. That led to uncontrollable worry about what people would say to me and how would I respond to them. The worry increased and I tried to stuff it.*

- **What were you feeling?** *Stressed-out, anxious, angry, heart-racing, sad*

- **Were you/are you stressed out about something?** *Yes, seeing my extended family and how I would answer questions about what I am doing with my life being that I am 45 years old and still in a rehabilitation facility.*

PSYCHOTHERAPY & CRT PROCESSING OF EPISODE LOG

- Analyze the log in session…looks like Sam was pretty clear it was both mental and physical stress
- The worry was a specific fear that Sam was able to identify
- Able to visually see how he 'stuffed' his feelings and it led to a seizure
- Focus in session was on these identified worries and implementing a problem solving approach to 'break the cycle'
- Sam was seizure free the two weeks that he was home for Christmas break
- The episode log helps to visually pull apart the seizures and identify with triggers, thoughts, and emotions that may be fueling the seizures

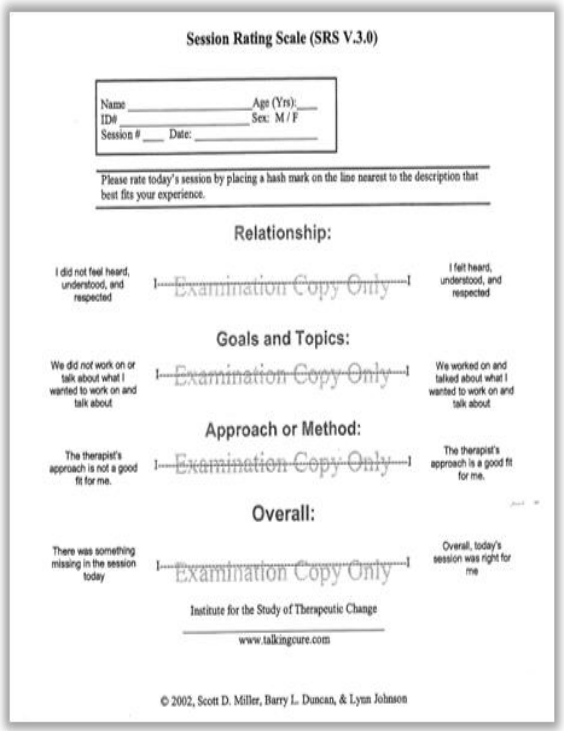
APPROACH TO PSYCHOTHERAPY & CRT – MEICHENBAUM'S CORE COMPETENCIES

- Establish and maintain therapeutic alliance
- Communicate an accepting, supportive, helpful, empathic, validating
- Assess their reasoning for presenting problems and identify possible barriers
- Be culturally sensitive
- Assessment of risk to self and others
- Use the art of Socratic Questioning

(Meichenbaum 2013)

APPROACH TO PSYCHOTHERAPY & CRT – MEICHENBAUM'S CORE COMPETENCIES

- Conduct a thorough, comprehensive assessment – use of Session Rating Scale



Session Rating Scale (SRS V.3.0)

Name _____ Age (Yrs):___
ID# _____ Sex: M / F
Session # ___ Date: _____

Please rate today's session by placing a hash mark on the line nearest to the description that best fits your experience.

Relationship:

I did not feel heard, understood, and respected — I felt heard, understood, and respected

Goals and Topics:

We did not work on or talk about what I wanted to work on and talk about — We worked on and talked about what I wanted to work on and talk about

Approach or Method:

The therapist's approach is not a good fit for me. — The therapist's approach is a good fit for me.

Overall:

There was something missing in the session today — Overall, today's session was right for me

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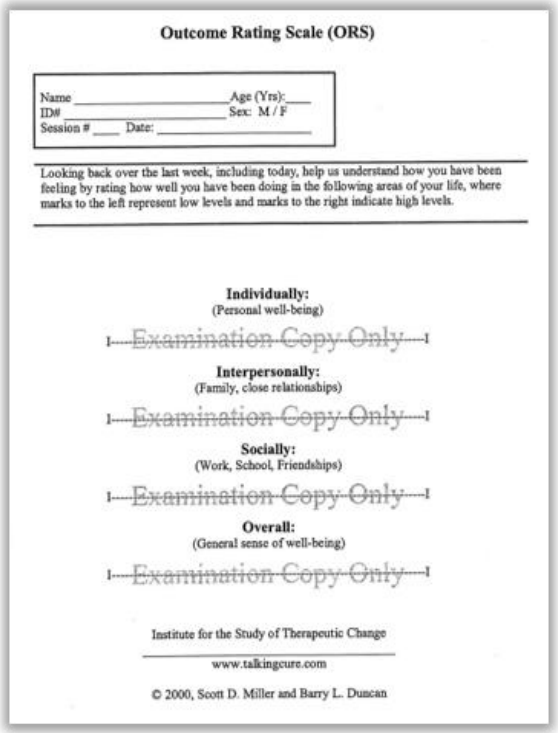

Outcome Rating Scale (ORS)

Name _____ Age (Yrs):___
ID# _____ Sex: M / F
Session # ___ Date: _____

Looking back over the last week, including today, help us understand how you have been feeling by rating how well you have been doing in the following areas of your life, where marks to the left represent low levels and marks to the right indicate high levels.

Individually:
(Personal well-being)

Interpersonally:
(Family, close relationships)

Socially:
(Work, School, Friendships)

Overall:
(General sense of well-being)

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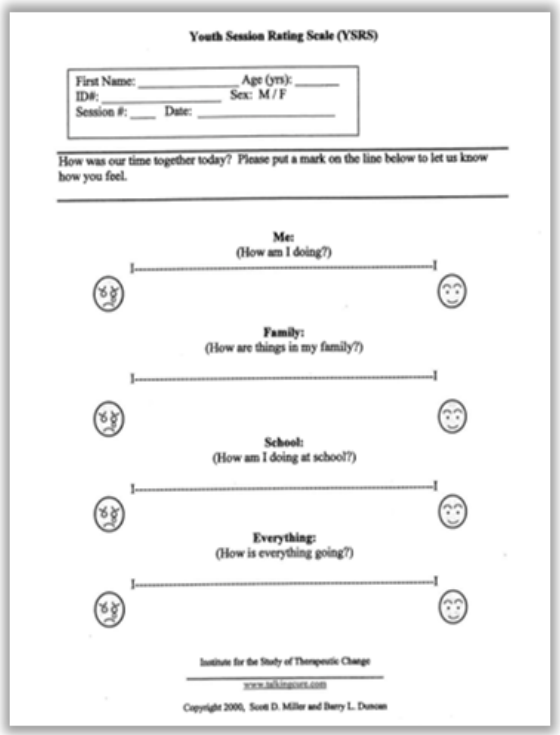

Youth Session Rating Scale (YSRS)

First Name: _____ Age (yrs): _____
ID#: _____ Sex: M / F
Session #: ___ Date: _____

How was our time together today? Please put a mark on the line below to let us know how you feel.

Me:
(How am I doing?)

Family:
(How are things in my family?)

School:
(How am I doing at school?)

Everything:
(How is everything going?)

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(Meichenbaum 2013)

APPROACH TO PSYCHOTHERAPY & CRT – MEICHENBAUM'S CORE COMPETENCIES

Engage in collaborative goal-setting that nurtures hope; SMART goals

Conducting ongoing psycho-education through use of Clock Metaphor

Use of episode logs

Document, Document, Document

Help the individual engage in inter-session activities

Build in ways to promote self-regulation and interpersonal skills – use of Cognitive Restructuring

Use of spiritually-based interventions/support

Encouraging the individual to take risks and re-integrate self within their community

Develop a plan of self-care behaviors

(Meichenbaum 2013)

COPING WITH NON-EPILEPTICAL SEIZURES & TBI

Finding and identifying with a healthy quality of life (QOL)

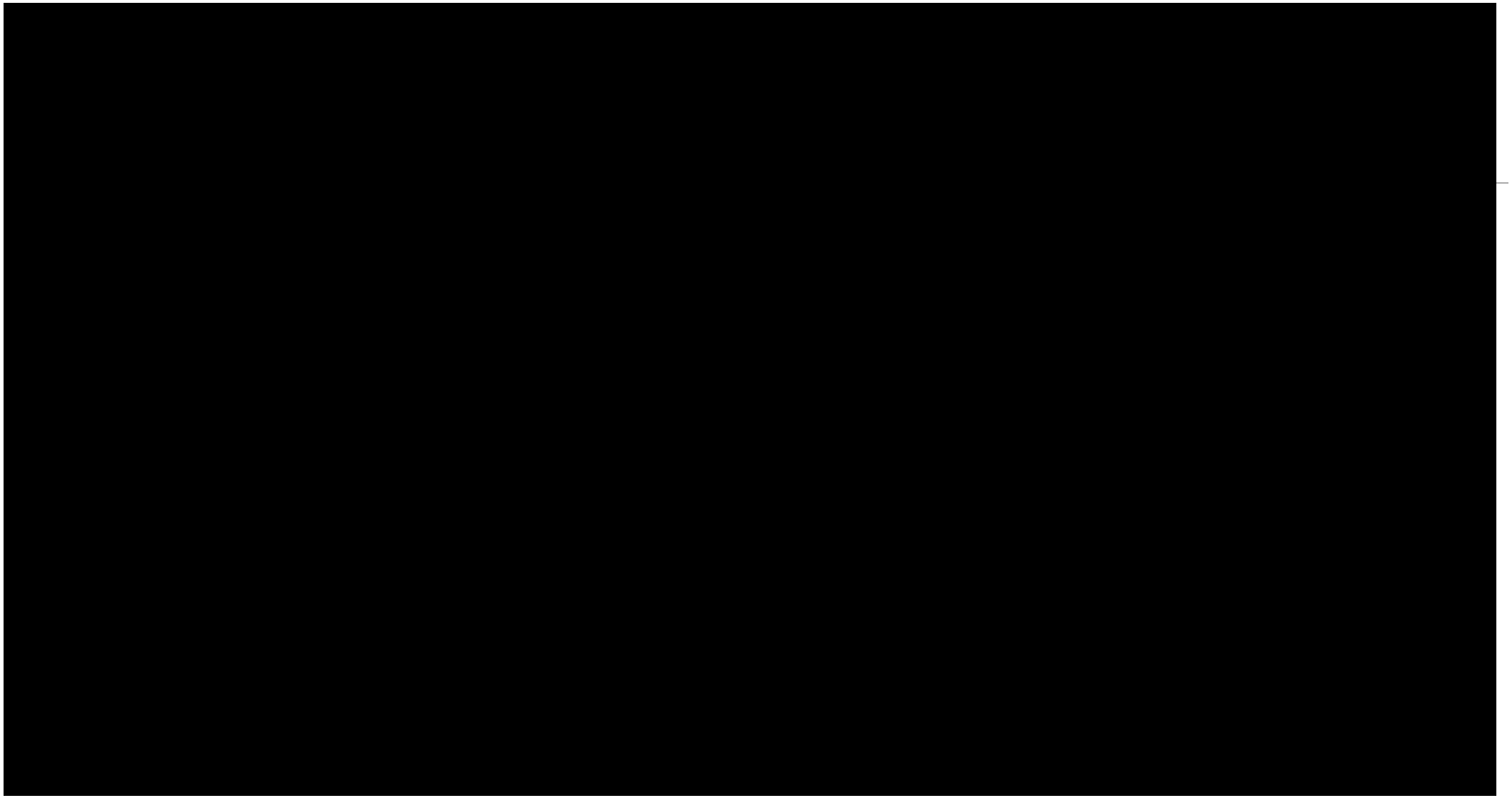
The *perceived* quality of an individual's emotional, physical, and social life.

Health problems can contribute to and impact an individual's sense of wellbeing.

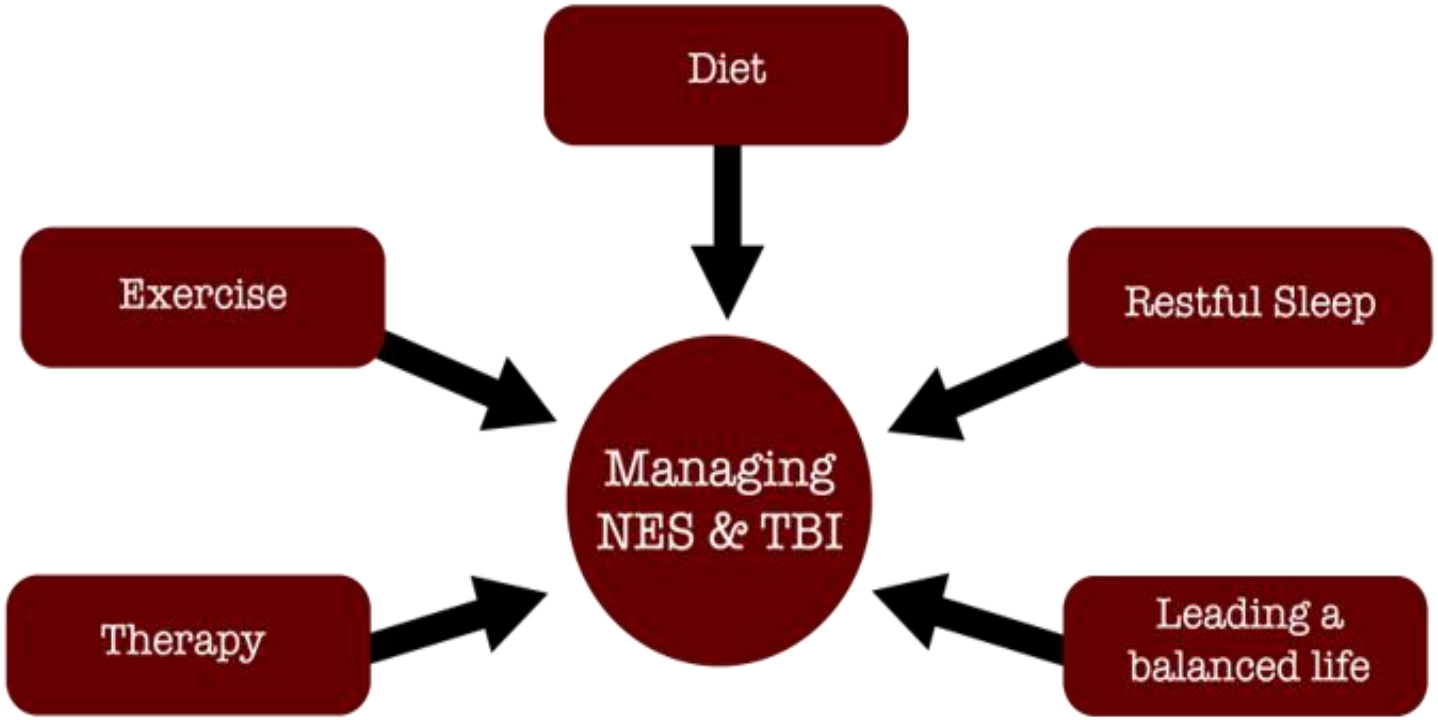
Vary from limitations in functional status such as cognitive, emotional, and physical wellbeing.

QOL can be a struggle with individuals with NES & TBI

(Meyers, 2018)



COPING WITH NON-EPILEPTICAL SEIZURES & TBI



Outcome Measures

MPAI-4 (Mayo-Portland Adaptability Inventory, 4th Edition), MoCA (Montreal Cognitive Assessment), Neuro QOL Depression Inventory, and Cognitive Function Abilities Subset – Short Form, along with neuropsychological evaluations done by contractors.

Data

Descriptive Statistics				
	N	Min	Max	Mean
DOB	17	32yrs.	66yrs.	49.29yrs.
Yrs. Post Injury	17	4.5yrs.	41yrs.	19.5yrs.

	Paired Samples Test
Age paired with Cog. Fun. Measures	Sig <.001
Yrs. Post Injury paired with Cog. Fun. Measures	Sig .009

This correlates with the Lesniak et al (2020) article findings where they reported how comprehensive cognitive training improves attention and memory with patients with a TBI. Patients reported significant improvements, where $p < .05$

Upcoming Research

- Clinician perspectives on posttraumatic growth and social cognition w/individuals with a TBI
- Client Perspectives on posttraumatic growth and social cognition throughout their rehabilitation journey
- Interventions to elicit posttraumatic growth and an enhanced social cognition w/individuals with a TBI

Conclusion

"I believe that anyone can conquer fear by doing the things he fears to do, provided he keeps doing them until he gets a record of successful experiences behind him." - Eleanor Roosevelt

As Henry David Thoreau once said,

"Go confidently in the direction of your dreams. Live the life you have imagined."

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