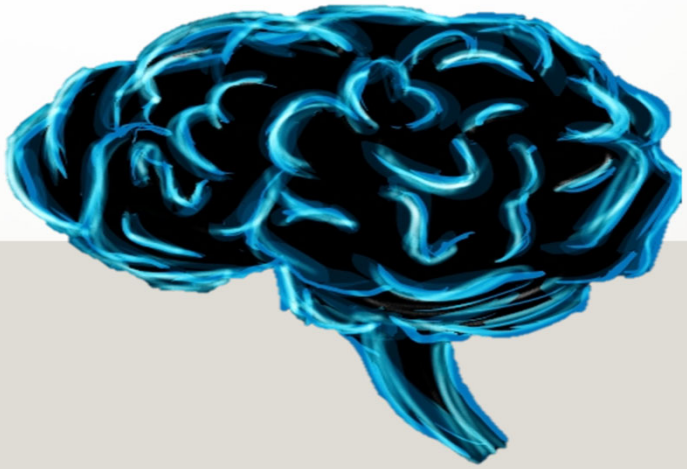

NEUROLOGICAL MANIFESTATIONS OF PSYCHOLOGICAL SYMPTOMS: A CASE STUDY

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CASE STUDY

- Sam is a 45 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 SEIZURES – 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 SEIZURES – GENERAL INFO

- A specific trauma 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.

NON-EPILEPTICAL SEIZURES – COMMON SYMPTOMS

- Prolonged duration
- Increased sweating
- Loss of consciousness
- Uncontrollable body movements
- Thrusting pelvic movements
- Asymmetrical limb movements
- No total loss of consciousness
- No confusion afterwards
- Can be distracted by loud noises or fear of danger
- Movements may start and stop, start and stop
- Heart palpitations
- Side-to-side head movements
- Crying/Spitting during episodes
- Closed eyes during the event
- Periods of talking during event
- Resistance to eyelid opening
- 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

(Lesser 2003)

NON-EPILEPTICAL SEIZURES – TREATMENT

- Psychiatry – different forms of anti-anxiety and anti-depressant medications
- Psychotherapy, specifically trauma treatment therapy – 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
- Positive coping strategies – quality of life measures to cope with stressful events

(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).

NON-EPILEPTICAL SEIZURES - RESEARCH

- 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 -

- It's invisible…you may be completely unaware of it…you look normal
- You've been exposed to something terrible that caused you to feel extreme fear, helplessness, guilt, anxiety, and anger
- Struggle with terrifying memories and constantly feel like you're in danger
- Deal with the trauma through avoidance, denial, and/or rumination
- Find ways to 'numb' the bad feelings
- Feelings and memories intertwine like a DNA strand and eventually erupt into NES…body's defense mechanism and inability to cope

(Myers 2018)

ROLE OF PSYCHOLOGICAL TRAUMA -

- Jaded and negative view of others and life. Distrust of others and their intentions.
- Employment problems
- Depression and Anxiety
- Physical symptoms and pain (headaches)
- Relationship problems
- Non-epilepitical seizures ensue due to the body's inability to cope

(Myers 2018)

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – 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, 2013)

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – 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.

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – 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.

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – MEICHENBAUM'S CLOCK METAPHOR

Sam's thought process -

Rumination on the circumstances of loss, anger, anxiety.

Difficulty accepting feedback

Avoidance of dealing with feelings

Denial that anything happened

Inability to see the only person he can control is himself

Not envisioning a future

All or nothing thinking (black n white thinking)

Mistrusts others

Distorts what has happened

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – MEICHENBAUM'S CLOCK METAPHOR

- Therapist Response – Normalize and validate feelings. Use healing metaphor (Wells et al. 2008) "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." Help them to exert control over their thoughts and behaviors. Reframing and restructuring thoughts to focus on moving forward in 'today'.

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – 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.

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – MEICHENBAUM'S CLOCK METAPHOR

- Goal of the Clock metaphor is to help with psycho-education for the individual to break down and face the trauma head on and identify where their behavior starts to become 'cyclical'
- Through the process of the Clock, the individual explores and identifies with feelings and begins the process of collecting 'data'
- Helps to identify ways to cope and break the cycle of non-epileptical seizures or at least diminish them from occurring daily
- Safe process for the individual to face their trauma and identify goals to achieve and move forward in a positive way

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – EPISODE LOG

- 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:

  Where were you when the episode started?

  What happened immediately before the episode?

  What were you thinking?

  What were you feeling?

  Were you/are you stressed about something?
- Process entries with individual in session and help them to discover their triggers.

(Myers 2018)

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – EPISODE LOG

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.*

STRATEGIES TO MINIMIZE NES AND FACE THE TRAUMA – 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

(Myers 2018)

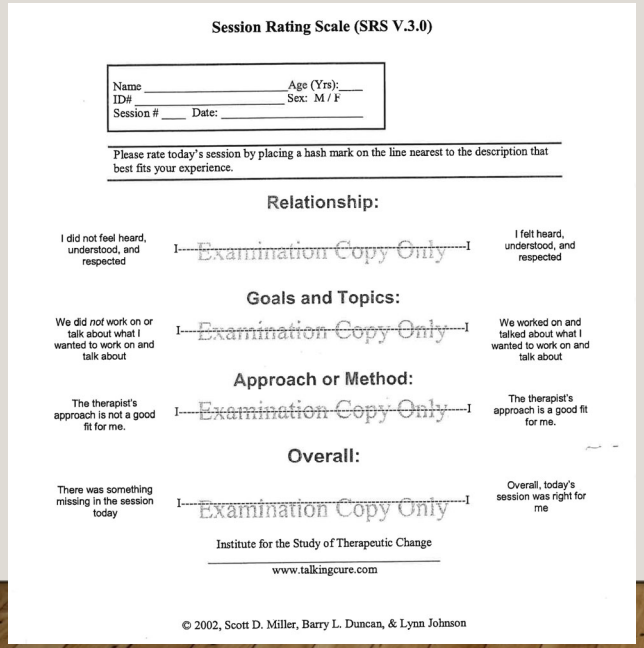
WAYS TO APPROACH PSYCHOTHERAPY – MEICHENBAUM'S CORE COMPETENCIES

- 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)

WAYS TO APPROACH PSYCHOTHERAPY – 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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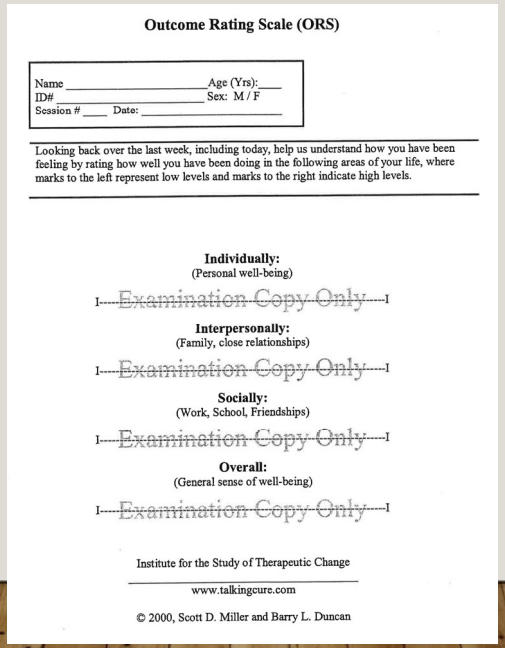

Outcome Rating Scale (ORS)

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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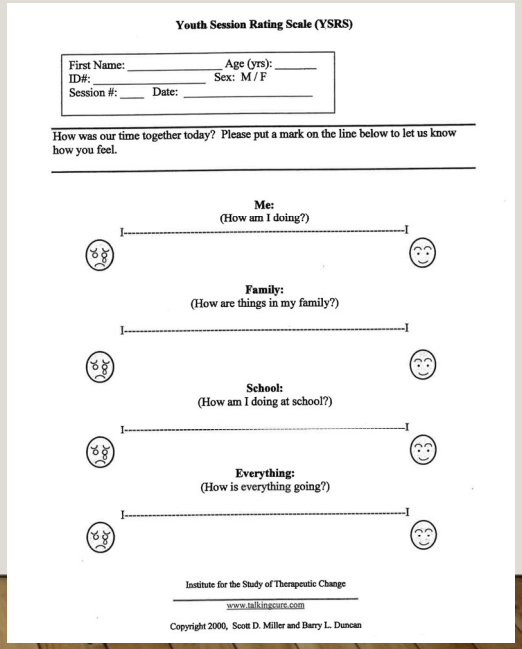

Youth Session Rating Scale (YSRS)

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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WAYS TO APPROACH PSYCHOTHERAPY – MEICHENBAUM'S CORE COMPETENCIES

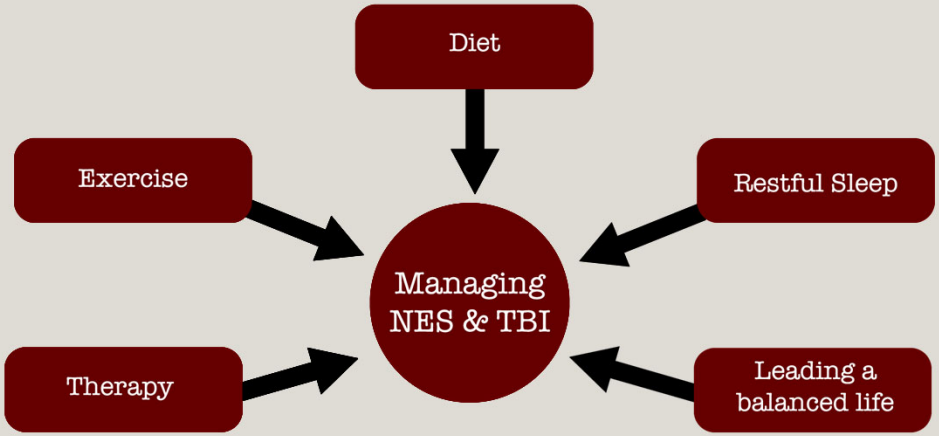
- Engage in collaborative goal-setting that nurtures hope; SMART goals
- Use of motivational interviewing
- Conducting ongoing psycho-education through use of Clock Metaphor
- Document, Document, Document
- Help the individual engage in inter-session activities
- Build in ways to promote self-regulation 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. It is made up of many factors: social economic conditions, safety, living conditions, health, etc.
- Health problems can contribute to and impact an individual's sense of wellbeing. This can vary from limitations in functional status such as cognitive, emotional, and physical wellbeing.
- QOL can be a struggle with individuals with NES & TBI (Myers 2018)

COPING WITH NON-EPILEPTICAL SEIZURES & 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

CONCLUSION

As Henry David Thoreau once said, "Go confidently in the direction of your dreams. Live the life you have imagined."

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