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FUNCTIONAL SEIZURE DISORDER

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OBJECTIVES

- Describe the transition from “Conversion Disorder” to Functional Neurological Disorder and related terminology.
- Identify two ways in which functional seizure disorder is diagnosed.
- Identify key characteristics of patients with functional seizure disorder.
- Describe currently available treatments for functional treatment disorder.
- Describe the challenges and rewards of caring for patients with functional seizure disorder.

WHAT ARE FUNCTIONAL SEIZURES?



Sudden, involuntary, episodic events characterized by alterations in movement, sensation, or experience similarly to epilepsy, but not associated with abnormal electrical discharges in the brain, instead caused by psychological processes.

Lanzillotti et al., 2021; Reuber and Elger, 2003

DIAGNOSIS OF FUNCTIONAL SEIZURES

- Video-EEG Monitoring in a specialty unit (gold standard)
- Semiology – during Video-EEG or captured on smartphone
- Clinical History

Benbadis and Lafrance, 2018



TABLE 1. SENSITIVITY AND SPECIFICITY OF SEMIOLOGIC FEATURES OF FUNCTIONAL AND EPILEPTIC SEIZURES

	Sensitivity (%)	Specificity (%)
Features favoring functional seizures		
Fluctuating course	69	96
Asynchronous movements	44-96	93-96
Pelvic thrusting	31	96-100
Side-to-side head or body movement	63	96-100
Closed eyes	88	74-100
Ictal crying	14	100
Memory recall	63	96
Features favoring epileptic seizures		
Onset from sleep	31-59	100
Postictal confusion	61-100	88
Stertorous breathing	61-91	100

WHO HAS FUNCTIONAL SEIZURES?

- FS often co-occurs with migraine and other neurological symptoms
- High rates of psychological trauma (abuse, sexual assault, neglect) including adverse childhood events (ACE) are common in FS



WHO HAS FUNCTIONAL SEIZURES?

- 75% of patients with FS are women*
- 22% of patients with FS also have epilepsy
- 12% of patients with epilepsy have FS



*This may reflect gender-biased diagnostic practices

COMMUNICATING THE DIAGNOSIS

- Raise the possibility of FSD diagnosis prior to EMU – only 10% always do this
- Confirm the condition is not deliberately produced, not treated with AEDs, and is psychological in origin
- Not having epilepsy is good news

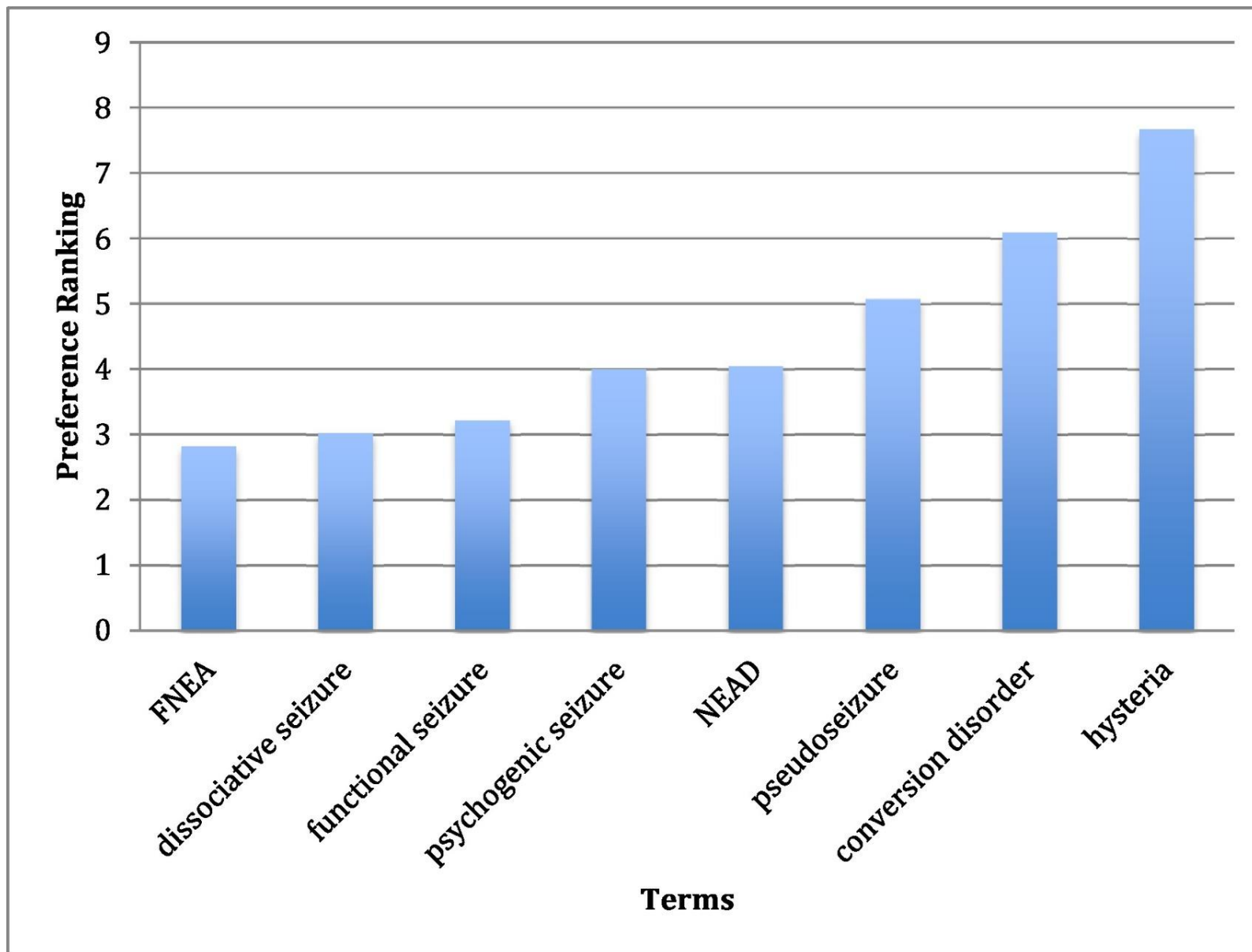
Dworetzky, 2015



WHAT MAKES COMMUNICATING THE DIAGNOSIS SO DIFFICULT?

- Biases of the health care team member communicating the diagnosis
- Patient history with the healthcare system and others
- Terminology





Source: Loewenberger et al., 2020.

SO, IS IT ALL IN MY HEAD?

Consider these responses:

- “No. Our nervous systems are complex, and the seizures you experience are real. Psychological stress and strong emotions can trigger physical reactions throughout our bodies, including in our gut, cardiovascular system, immune responses, and neurological systems.”
- “One way to think of it, is your brain sometimes gets overloaded and shuts down. It’s not always possible to identify what is overloading the brain.”
- “Antiepileptic drugs are not effective in these types of seizures.”

Reuber, 2017

PSYCHOTHERAPY CAN HELP CONTROL FUNCTIONAL SEIZURES.

Things you can say:

- “Psychotherapy, in particular cognitive behavior therapy, or CBT, is used to help people with many types of health conditions including diabetes, heart disease, kidney disease, epilepsy, and chronic pain.”
- “Two rigorous studies, one in the UK and one in the US, have show that CBT-based treatment specifically designed for functional seizures can reduce seizure frequency and anxiety levels, and improve quality of life.”

Goldstein et al, 2018, 2020; LaFrance et al, 2014; Moro et al, 2024

CAREFUL, RESPECTFUL COMMUNICATION IN FUNCTIONAL SEIZURE DISORDER CAN LEAD TO:

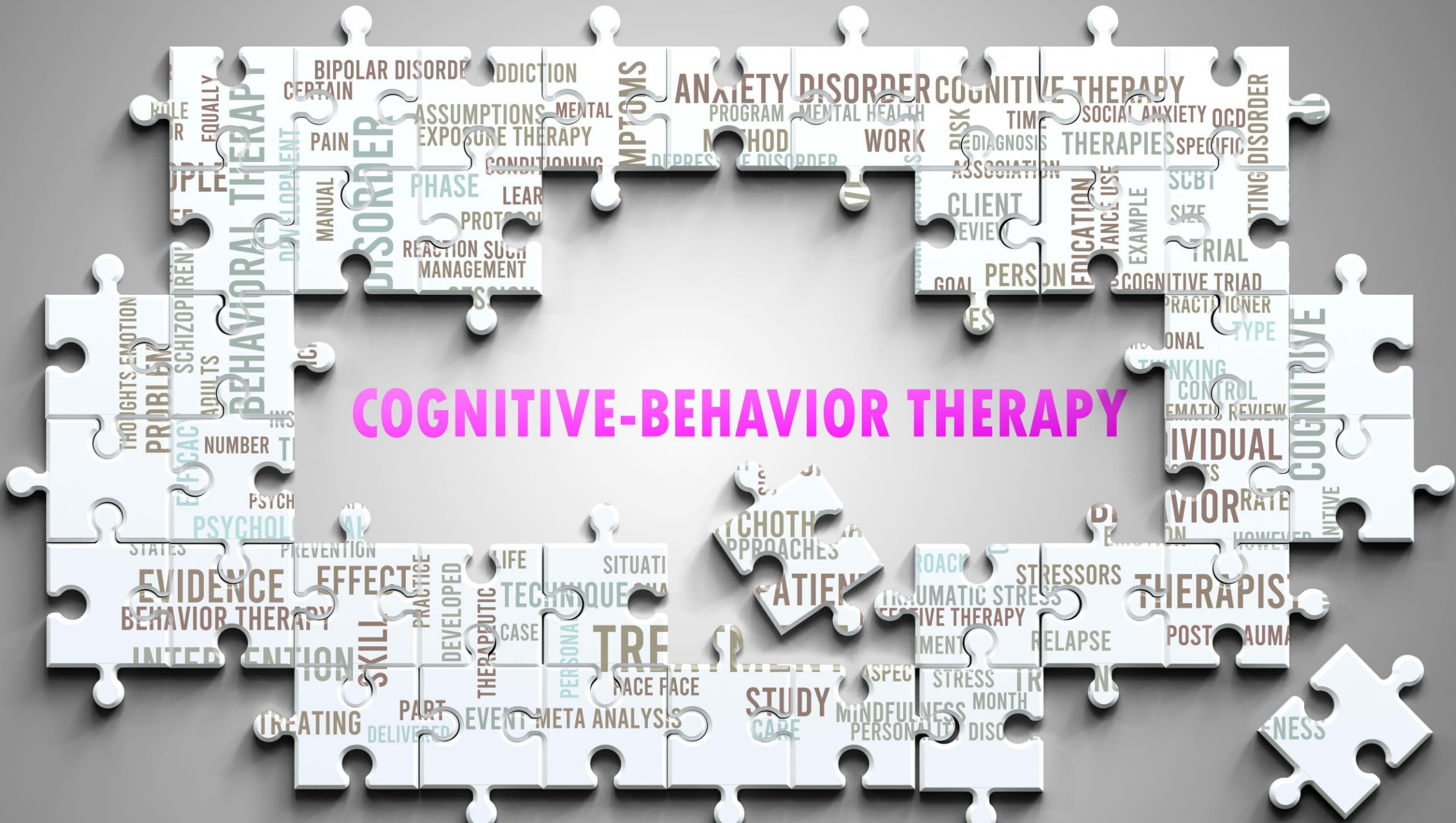
- Cessation of functional seizures about 3 to 6 months after the diagnosis has been explained in about one third of patients
- Better engagement with health care and greater acceptance of a referral for psychotherapy



LaFrance, Reuber, & Goldstein, 2013



COGNITIVE-BEHAVIOR THERAPY



CBT TREATMENTS FOR FUNCTIONAL SEIZURE DISORDER

CBT-Informed Psychotherapy at Brown Medical School, Rhode Island Hospital, and the VA

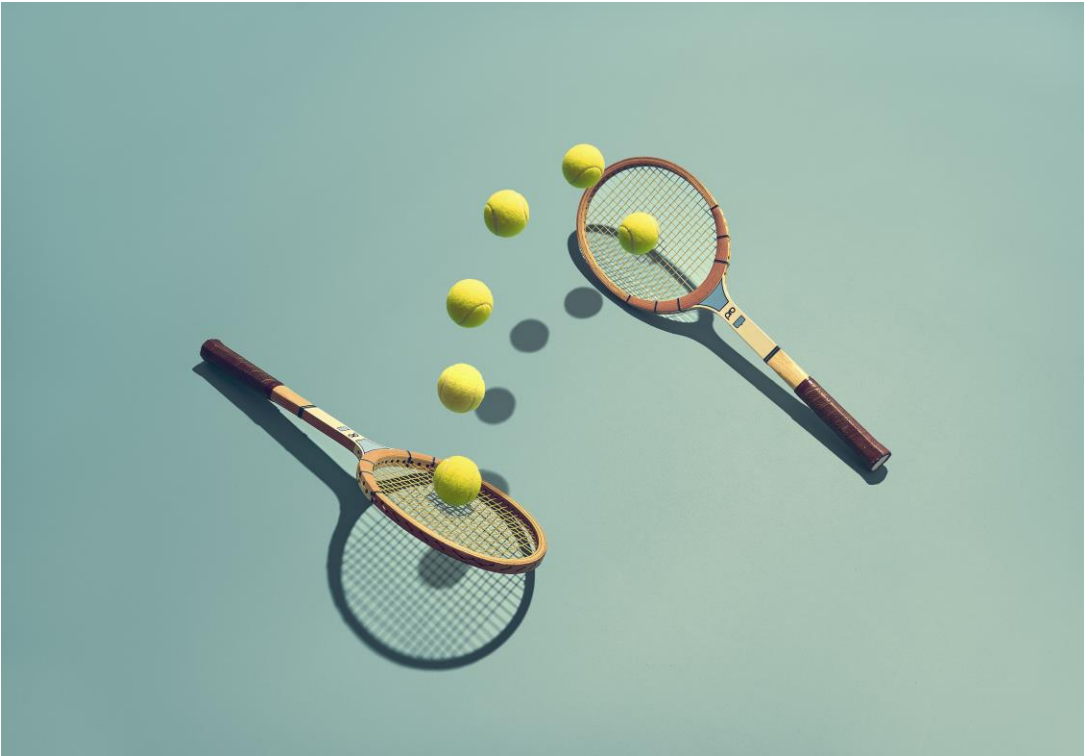
- Approximately 12 sessions
- Uses a treatment manual
- Draws from CBT but includes ACT, DBT, mindfulness, and psychoanalytic methods
- Self-monitoring of seizures

CBT at the Maudsley Hospital, London

- Approximately 12 sessions, manual available
- Relaxation and grounding procedures
- Graded exposure to avoided situations
- Acceptance of emotions
- Cognitive restructuring
- Self-monitoring of seizures

Goldstein et al, 2018, 2020; LaFrance et al, 2014; Moro et al, 2024

OBSERVATIONS CONCERNING TREATMENT



- Believe the patient
- Comorbidities are the rule, not the exception
- Communication with the neurologist and other members of the treatment team is ideal
- Crises are common

TELEMEDICINE CONSIDERATIONS

- Establish where the patient is and who is available during the session
- Establish what the patient wants to have happen when a seizure occurs during the session
- Use in-session events as opportunities for the patient to practice new skills (coach them, discuss triggers)



