

# Epilepsy for the PCP: Seizure vs. Psychogenic Nonepileptic Seizures (PNES)



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# Disclosures



- Research Support-None to disclose



# Case



- 11-year-old female
- Has “white-outs”
  - Dizziness, sees white, closes eyes, can’t walk independently during them, feels nauseated and fatigued, altered emotional state afterward (anxious or dazed).
- Neurologist indicates symptoms are medically unexplained.
  - Inpatient diagnostic workup all normal
  - Stopped attending school
  - Won’t bathe, toilet, or sleep independently
  - Fears being alone or separated from parent

# The Antecedents / Risk Factors



- **Genetics**
  - Mother with hx of severe depression w/ hospitalization.
  - Past syncope
- **Relational factors**
  - Parents' focus is on younger brother's autism.
  - Patient is anxious and prefers high level of parental support, affection, and attention.
  - Parents release patient from expectations and typical boundaries when symptoms present.
  - Mother has become enmeshed with patient and infantilizes her.
- **Symptoms began . . .**
  - 1 month after pt. began 6<sup>th</sup> grade
  - Bullied at school



# Precipitants/Triggers of the Symptoms



- Going to school
  - Episodes markedly increased in frequency and functional impairment when neurologist recommended return to school (had been out 2 months).
- Sleeping alone
- Separating from mother
- Dealing with the bully
- Talking about any of the above

# Learning Objectives



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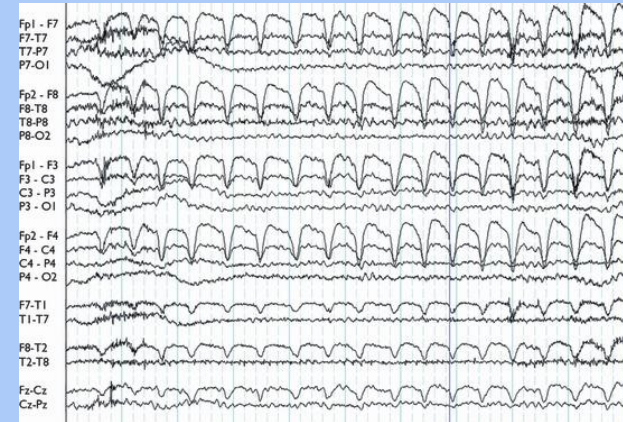
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# Learning Objectives



- Describe the challenges associated with making the diagnosis of Psychogenic nonepileptic seizures (PNES)
- Recognize common psychological risk factors for the development of PNES
- Outline a management approach for care



# Psychogenic Nonepileptic Seizures (PNES)



- ~~Pseudoseizure~~
- ~~Hysterical seizure~~
- Sudden and time-limited disturbances of motor, sensory, autonomic, cognitive and/or emotional functions that mimic epileptic seizures
- NOT associated with physiological central nervous system dysfunction

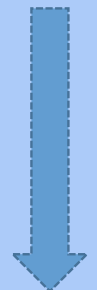
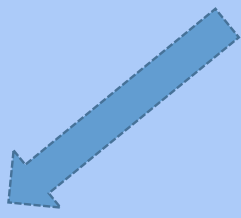
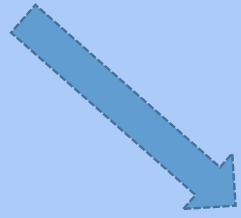


# Introduction



Biological Etiology

?????



Impairment



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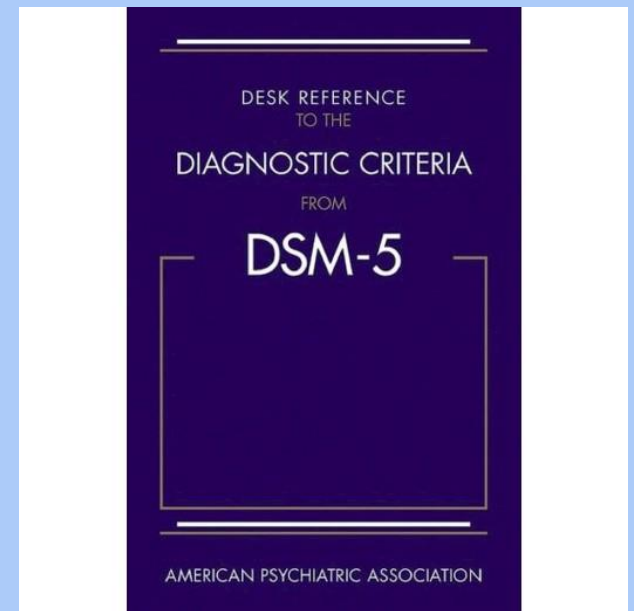


# Conversion Disorder

## DSM V Criteria



- One or more altered voluntary or sensory functions
- Clinical findings incompatible with recognized neurological or medical condition.
- Not better explained by another mental health disorder.
- Causes significant distress or impairment



# DSM V Criteria



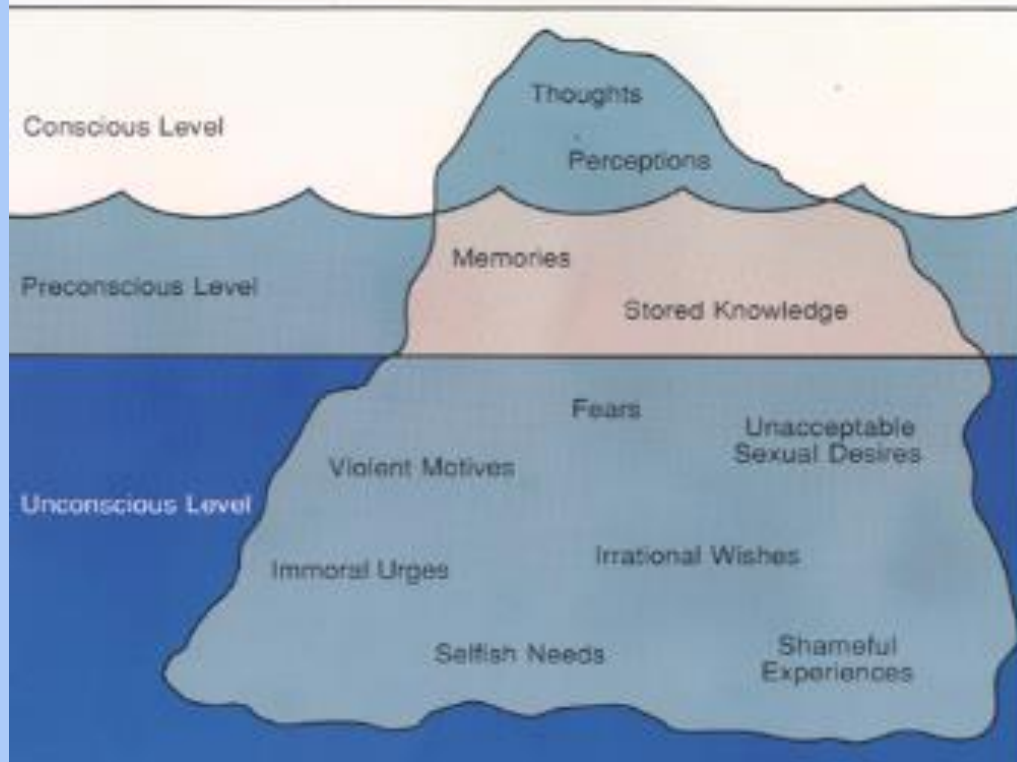
Specify the type of problem:

- Weakness or paralysis
- With abnormal movements
- With swallowing symptoms
- With Speech symptoms
- With seizures
- With sensory loss
- Mixed

# Freud's Topographic Model



## PERS 5 Freud's View of the Human Mind: The Mental Iceberg



Somatic symptom represents a symbolic resolution of an **Unconscious Psychological Conflict**, reducing anxiety and keeping the conflict out of the conscious.



# Epidemiology PNES in Adults



- In neurology:
  - Outpatients - up to 10%
  - Inpatient - up to 20-25%
- General population – 4/10,000
- Women > men
- Most remit quickly, but relapse is common
- Age of onset – 25 – 35
- High rate of psychiatric comorbidity
  - Depression, Anxiety, Personality Disorders, Somatization



# Epidemiology PNES- Children



- **Prevalence:**
  - Outpatient epilepsy centers: 5-25% of patients had PNES
  - Inpatient epilepsy centers: 25-40% had PNES
  - 2-33 per 100,00
  - More common in adolescents with depression and anxiety than younger children
- **Age on onset influenced by pre-existing conditions**
  - Learning Disabilities
  - Sexual, physical or psychosocial trauma
- **Risk Factors**
  - Family history of seizures
  - Friend or acquaintance with seizures

# Clinical Presentation



- **Broad diversity of symptoms**
  - Long duration of the event
  - Fluctuating course
  - Asynchronous movements that wax and wane
  - Pelvic thrusting
  - Side-to-side head or body movements
  - Ictal eye closing and resist opening
  - Ictal crying
  - Memory recall
  - Absent postictal confusion
  - <13 had subtle motor manifestations compared to teens



# Clinical Presentation



- Most episodes of PNES are witnessed
  - One study of occurring in the waiting room or exam room had a 75% predictive value for PNES
  - One study found episodes occurring with EEG lead placement associated more with PNES than epileptic seizures
- PNES tends not to occur during sleep
- Witnesses note more emotional stress as a trigger than patients
- More frequent (most report daily)
- Long history of seizures with unsuccessful treatment with medication





# Differentiating

Sign	Epileptic	PNES
<b>Duration</b>	Usually brief, less than 1-2 minutes	Usually longer than 2 minutes
<b>Eyes</b>	Eyes usually open during event	Eyes often closed Forced eye closure suggests PNES
<b>Motor activity</b>	Stereotyped Synchronized Build, progress	Variable Forward pelvic thrusting, rolling side to side, opisthotonus Wax and wane
<b>Vocalization</b>	Uncommon, especially during convulsion	May occur
<b>Prolonged ictal atonia</b>	Vary rare	May occur
<b>Incontinence</b>	Common in convulsive seizure	Less common
<b>Autonomic signs</b>	Cyanosis, tachycardia common with major convulsion	Uncommon
<b>Postictal symptoms</b>	Usually confused, drowsy Headache common	May rapidly awaken and reorient Headache rare



# Diagnosis



- Thorough evaluation of the complaint
- 1965 - greater than 50 % of people labeled with conversion were later found to have neurological cause
- Now – better testing and much lower false positives
- Good history with psychiatric evaluation
- Video EEG
- Family video record
- Serum markers-prolactin levels, CPK, cortisol, WBC, lactate dehydrogenase, pCO<sub>2</sub>, ammonia
- Neuropsychological testing with MMPI



# Co-morbid Conditions



- 32% had a mood disorder (MAD, BP, Dysthymia)
- 24% had separation anxiety and school refusal
- 6% had brief reactive psychosis or schizophreniform disorder
- <1% had panic disorder, overanxious disorder
- 12% had personality disorders
- 32% had a history of sexual abuse (more frequent in the mood disorder group)
- 44% had severe family stressors
- 6% had a history of physical abuse

Wyllie, E; et al, Arch Pediatr Adolesc Med. 1999;153(3):244-248

# Why is it important to identify PNES?



- Treatment is different
- Prevent inappropriate treatment with anticonvulsants



# Treatment



In pairs, 1 person will role play a patient and the other the physician who informs of them of the diagnosis



# Explaining Diagnosis to Family

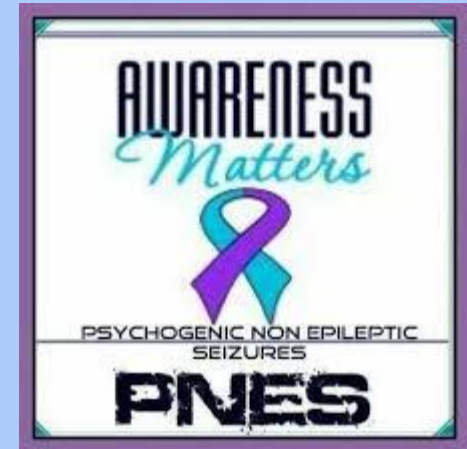


- Clinician must feel definite about the diagnosis
- Well-trained in delivering this information
- Setting is important- not in the EEG unit
- Calm, confident and nonjudgmental
  - Calm, confident, reassuring demeanor put patient and family at ease.
- Have a practiced approach in mind
  - Mind-body connection
  - Problem is as serious as epilepsy and deserves attention and treatment
  - Body's way of managing emotions ( stomach aches, dry mouth, fight/flight response)
  - Patient is not “crazy” or “it is all in their head”

# Explaining Diagnosis (Continued)



- Expect a continuum of responses
  - Acceptance to anger/denial (Anger is predictive of a poor prognosis)
- Explain that there may be an increase in symptoms after the discussion
- Education about PNES is crucial
  - Printed material
  - Website:
    - ✦ [www.nonepilepticattacks.info](http://www.nonepilepticattacks.info)
    - ✦ [www.neurosymptoms.org](http://www.neurosymptoms.org)



# Rallying the Team – Referrals and Coordinating Care



- Need to maintain neurology follow-up during the transition period
  - Premature discharge can exacerbate episodes and increase resistance to accepting the diagnosis
  - Assist with discontinuation of antiseizure medication if appropriate
- School Re-entry
  - Education of staff
  - Coordinate with the school nurse a management plan
  - 504 or OHI to assist with the transition

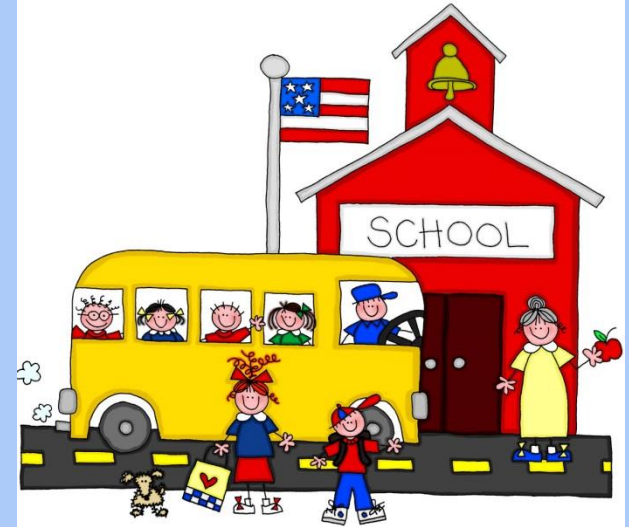




# School Intervention



- Parents stop going to school
- Parents drop off & a teacher or administrator walks them to class
- Allow patient to take a short break with a comforting teacher
- Attend nonthreatening/reinforcing parts of school day first, then return to full days quickly
- Encourage use of CBT for anxiety
- Create a token economy



# Intervention



- Education
- Cognitive Behavioral Therapy- Motivating the behavioral change:
  - Change in thought and behaviors that contribute to emotional stress
  - Seizure frequency decrease 51%
- CBT+ SSRI
  - Seizures decreased by 59%
- SSRI
  - No change in frequency
- Antidepressants may be helpful when dealing with comorbidity



# Cognitive Strategies



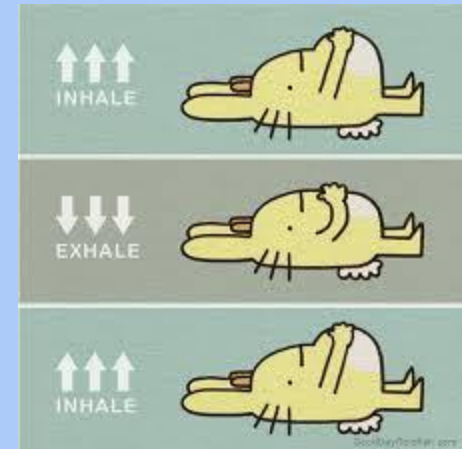
- Locus of Control
  - “I prefer” vs. “I can’t.”
  - Recognizing improvements as due to patient’s efforts
- Cognitive Restructuring
- Creating Adaptive Thoughts
  - “I can feel comfortable.”
  - “I am safe.”
  - “I can feel fine.”



# Behavioral Strategies



- Diaphragmatic breathing
- Guided imagery
- Health Behaviors: Exercise, Sleep hygiene, Nutrition
- Calming pleasant activities



# Prognosis



- 70-80% of children achieve remission compare to 25-38% of adults
- Some adults developed new somatic complaints with resolution
  - Pain/headaches in 77%
- Worse prognosis predicted by:
  - Longer duration of symptoms
  - Older age on onset
  - Lower IQ
  - Limited family support



# Prognosis



- **Worse prognosis predicted by:**
  - No formal treatment plan
  - Ongoing abuse/family conflicts
  - Anger or rejection of the PNES diagnosis
  - Severe psychopathology



# PNES is classified under which diagnosis under the DSM-V



- 1. Conversion Disorder
  - 2. Somatic Symptom Disorder
  - 3. Illness Anxiety Disorder
  - 4. Factitious Disorder
- Question Rationale: *Under the DSM-5 classification, PNES would be considered a Functional neurological Symptom Disorder (Conversion). It may have comorbid anxiety, PTSD, depression associated with it. Due to the impairment associated with the disorder, it would not be considered to be a preoccupation of illness typically associated with Illness Anxiety Disorder*



# Summary



- Thorough evaluation including video EEG and detailed psychiatric assessment is critical
- Exploration for psychosocial stressors including sexual and physical abuse
- Education, psychotherapy and pharmacotherapy when indicated





# Suggested Discussion Topics



- How medical and mental health providers feel about somatic symptom disorders and how this impacts patient care.
- Dealing with resistance in patients and/or parents to medical explanation of symptoms.
- What to do when you have a medical disorder AND a somatic symptom disorder with similar presentations (e.g., epileptic patient with psychogenic seizures, too).
- Addressing the sense of urgency coming from parents, doctors, teachers, and still keeping patients out of the ED



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