Functional Neurological Symptoms: Conversion Disorders?

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I have the following financial relationships with the manufacturers of commercial products and/or providers of commercial services:

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Learning objectives

1. Recognize that functional disorders may have no identifiable antecedent psychological stressor that is being “converted”
2. Apply tailored strategies for discussing differential diagnosis and functional diagnosis with families
3. Utilize available resources to obtain early diagnosis (early referral) and treatment for positive outcomes
As a result of attending this lecture at the 2017 Practical Pediatrics CME course, I encourage you to make the following change in your practice:

1. **Introduce the possibility of a functional diagnosis on "equal footing" with other diagnoses when this is first suspected.**
2. **Utilize available resources to obtain early diagnosis (early referral) and support ongoing treatment for positive outcomes.**
3. **In cases where families reject psychological explanations, destigmatize the diagnosis and support a behavioral/functional approach.**
Case 0

A previously healthy 17 year old develops blindness the day after her mother’s violent death...
Classic – but no longer the archetype of this condition
A previously healthy 14-year-old develops abnormal arm movements which start and stop abruptly. She has not been able to attend school for 4 days. She has been to the ER twice but has no diagnosis. Her neurology appointment is not for 3 months, and she now presents to your office.
Case 2

A 16 year old adolescent female has had 4 convulsive episodes characterized by thrashing her head back and forth, flailing her arms, bicycling with her legs, and rocking her body for 20 minutes. Her eyes are reportedly clenched tightly shut during these episodes. These have been witnessed by physicians in the emergency room. The mother is angry that the physician suggested she was faking seizures.
Prevalence

- Estimates vary widely but this is common
- You do/will see this in your practice
Outline

I. Definitions and Language
II. Examples
III. Diagnostic process
IV. Treatment/Management of two cases

Handout gives additional guidance
I. Definitions

DSM – IV → DSM – 5
Somatic Symptom and Related Disorders

Conversion Disorder (Functional Neurological Symptom Disorder)

Criteria for conversion disorder (FNSD) are modified to emphasize the essential importance of the neurological examination, and in recognition that relevant psychological factors may not be demonstrable at the time of diagnosis.
Language

**Offensive?**
- “Hysterical”
- Faking
- Wacky
- Conversion
- Pseudo
- Psycho-anything
- Stress-induced

**Acceptable?**
- Real / Organic
- Software Problem
- Something incomprehensible
- Stress-induced
- Functional Disorder
II. Examples
Examples of Functional Neurological Symptom Disorder

1. Non-epileptic “spells” / “pseudoseizures” → “psychogenic seizures”
2. Functional/Psychogenic Movement Disorders (Tremor, Tics, Dystonia, Ataxia/Astasia-Abasia)
3. Functional/Psychogenic weakness / sensory loss
III. Diagnostic Process

IS THIS A DIAGNOSIS OF EXCLUSION?
III. A. Diagnosis – Positive, Incongruous Findings

- Symptoms and Signs Incongruous with disease:
  - Motor; Sensory neuro-anatomy
  - Movement Phenomenology

- Seizures: Non-seizure semiology clinically recognizable / verifiable with ictal EEG
III.B. Hemi-sensory anatomy

http://www.neurosymptoms.org/

http://mbbsdost.com/

Refer?
III.B.

- A very detailed general medical and neurological examination is vital
  - Thorough search for medical causes
  - Shows the patient that you care
  - Therefore can be both diagnostic and therapeutic

- Refer: Anatomy (motor, sensory) and phenomenology are complex
III.C. Psychogenic-Seizures

“FUNCTIONAL/DISSOCIATIVE EPISODES”
<table>
<thead>
<tr>
<th>Clinical Feature</th>
<th>Epileptic (n=27)</th>
<th>Psychogenic (n=16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Automatisms</td>
<td>52%</td>
<td>7%</td>
</tr>
<tr>
<td>11. Buildup &lt; 70 sec</td>
<td>81%</td>
<td>7%</td>
</tr>
<tr>
<td>14. Eyes Closed at Peak</td>
<td>0%</td>
<td>80%</td>
</tr>
<tr>
<td>15. Waxing/Waning</td>
<td>4%</td>
<td>69%</td>
</tr>
<tr>
<td>16. Nonsynchronous Movements</td>
<td>8%</td>
<td>69%</td>
</tr>
<tr>
<td>17. Side to side head movements</td>
<td>0%</td>
<td>33%</td>
</tr>
<tr>
<td>19. Pelvic Thrusting</td>
<td>4%</td>
<td>31%</td>
</tr>
<tr>
<td>20. Expression of pain</td>
<td>0%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Adapted from Chen et al, Epilepsy and Behavior 2008
Refer early and quickly

POSITIVE PROGNOSTIC FACTORS:

SHORT DURATION
EARLY DIAGNOSIS
SATISFACTION WITH CARE
III. D. Diagnosis – Psychological Factors

Is a major stress being converted?
Stress and psychogenic illness: Not always

- The “magnitude” of the proximate stressor may be small (Camel-straw)
- Child/family may be unable to interpret any physical symptoms as being produced by stress or any psychiatric factors
- Child/family may not recognize emotions or have words to use to describe emotions (alexithymia)
Stress and psychogenic illness

- Small stresses can seem big if:
  - Feelings about the stress are unresolved
  - An underlying mood disorder is present
    - Note - this may not be identified by the psychologist or psychiatrist initially
  - The child has not developed coping skills
  - The primary role model/parent has personality disorder
III.E. Diagnosis: “faking”

- Typically not faked
- Be vigilant for malingering and Munchausen’s but this should be infrequent
IV. Treatment

COMMUNICATION ABOUT THE DIAGNOSIS IS PART OF THE TREATMENT
What should we say to patients with symptoms unexplained by disease? The “number needed to offend”

Jon Stone, Wojtek Wojcik, Daniel Durrance, Alan Carson, Steff Lewis, Lesley MacKenzie, Charles P Warlow, Michael Sharpe

Offensive? • Acceptable?
Approach to the patient
Case 1

A previously healthy 14 year old develops abnormal arm movements which start and stop abruptly. She has not been able to attend school for 4 days. She has been to the ER twice but has no diagnosis. Her neurology appointment is not for 3 months and she now presents to your office.
You are on the front lines.

Your interaction will influence the success of treatment.
History

- Cc/ HPI: Careful, systematic, detailed.
  - Force family’s narrative into linear form
- Family history – use this to identify genetic/environmental risks AND to explore attitudes toward mental illness
Physical Examination

- Very thorough
- Diagnostic
- Creates/enhances relationship
- Therapeutic
Scenario: after taking a history and examining the patient:

You judge this is functional (conversion) but you are not sure…
You believe this family is open to the idea that this is stress-induced or psychogenic (perhaps parent volunteers this information)

OPEN TO PSYCHOGENIC DIAGNOSIS
You say...

“One of the possible causes of the symptoms your child is having is a brain disorder which causes TREMOR, resembles PARKINSONS, but is actually psychogenic – stress or emotions cause the brain to develop these symptoms”
You believe this family is OPPOSED to the idea that this is stress-induced or psychogenic

ANYTHING RELATED TO PSYCH = “OFFENSIVE”
You say...

“One of the possible causes of the symptoms your child is having is a brain disorder which causes TREMOR, resembles PARKINSONS, but is actually functional – the brain is mis-firing ("software problem"), sending incorrect signals through the nerves to the muscles, and producing these symptoms"
First Encounter –

- Take it seriously: “Brittney has a serious problem and we need to get an accurate diagnosis and aggressive treatment before this causes long-term disability”

- “The neurologist may possibly order some medical tests to rule out some of the other possible causes.”
Refer Quickly to Child Neurology

- Communicate
- Pester
- Don’t send (back) to Emergency Department
Role of Child Neurologist

- Diagnostic testing if necessary
- Establish Diagnosis (note this is not role for psychiatry or psychology)
- Educate
- Collaborate: Back to school/behavior plan, behavioral health referrals, medical follow up (both)
Case 2

A 16 year old adolescent female has had 4 convulsive episodes characterized by thrashing her head back and forth, flailing her arms, bicycling with her legs, and rocking her body. Her eyes are reportedly clenched tightly shut during these episodes. These have been witnessed by physicians in the emergency room. The mother is angry that the physician suggested she was faking seizures.
You say...

“One of the possible causes of the seizures your child is having is Epilepsy. But there are also NONEPILEPTIC seizures which occur commonly at this age. The brain is mis-firing (“software problem”) and producing these symptoms”

Psych averse family
Refer Quickly to Child Neurology

- Communicate
- Pester
- Don’t send (back) to Emergency Room
- No Driving or Unsupervised Bathing/Swimming
After the Diagnosis is Made

1. Keep an open mind but support the diagnosis
2. Reinforce the diagnosis they have (functional, psychogenic)
3. Reinforce the diagnoses they don’t have (“This is not epilepsy, MS, etc”)
4. Validate: This is stressful, it IS A REAL PROBLEM
Effective Treatment

- Treat what can be treated medically (depression, anxiety, snoring)
- Behavioral medicine for stress, coping, cognitive behavioral treatment
- **Resume normal well behavior**
- Consider rehabilitation for weakness
- Consider inpatient psychiatry for severe cases
Effective Treatment

- Keep Neurology Involved – make sure child has follow up
Acceptance

- Early acceptance of diagnosis increases the likelihood of a positive treatment response

- Gelauff J et al, J NNP, 2013
Functional and Dissociative Neurological Symptoms: a patient's guide

This website is about symptoms which are:

- neurological (such as weakness, numbness or blackouts)
- REAL (and not imagined)
- and due to a PROBLEM with the FUNCTIONING of the nervous system, and NOT due to neurological disease.

These symptoms have many names (including dissociative symptoms and conversion symptoms) but are often described as "functional symptoms" or "functional disorders"

Symptoms like these are surprisingly common but can be difficult for patients and health professionals to understand.

This website, written by a neurologist with a special interest in these problems, aims to give you a better understanding of these symptoms. It has no advertising and does not make any money for the author.

How to use this website...

Most people with functional or dissociative neurological symptoms have a combination of symptoms like "weakness, numbness and fatigue" or "blackouts and sleep problems"

Click on a symptom on the right or use the menu above to explore the symptoms that are relevant to you.

Click on ‘Causes’ to discover what is known about....

- what is going wrong in the body when they do happen (Mechanisms) and
- why people become vulnerable to these symptoms (Causes)

Click on ‘Misdiagnosis’ to find out how likely it is that your diagnosis is wrong

Click on ‘In the mind?’ for some answers to this question

Symptoms...

- Functional Limb Weakness
- Blackouts / Attacks
- Sensory Symptoms
- Pain
- Tiredness / Fatigue
- Sleep Problems
- Poor Memory / Concentration
- Dissociation

- Functional Tremor
- Functional Dystonia/Spasm
- Functional Walking Problems
- Word Finding Difficulty
- Slurred Speech
- Bladder Symptoms
- Bowel Symptoms
- Drop Attacks
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2. Utilize available resources to obtain early diagnosis (early referral) and support ongoing treatment for positive outcomes.
3. In cases where families reject psychological explanations, destigmatize the diagnosis and support a behavioral/functional approach.
Gelauff’s paper is a helpful summary of adult data. No such large dataset exists for children although smaller retrospective case series support similar results. The papers by Stone remain extremely practical. I would also highly recommend www.neurosymptoms.org. I recommend this to parents regularly.
Thank you for your attention