FUNCTIONAL NEUROLOGICAL SYMPTOM DISORDER

Background

Functional neurological symptom disorder (FNSD) refers to a dysregulation of the nervous system affecting motor, sensory, and cognitive function. Functional neurological symptoms occur despite all the basic building blocks of the nervous system (brain, spinal cord, nerves, muscles) having normal basic functions. Rather being due to a physical disruption of these basic symptoms, functional symptoms are unconsciously maintained conditioned responses thought to be caused by abnormal function of brain centers that regulate attention, emotion, and sense of agency (feeling of control over actions and their consequence).

FNSD is evolving beyond a "conversion" of psychological distress symptoms to recognition as disorder with complex interactions between biological, psychological, and social dimensions. While psychological factors such as history of life stressors, conflict or trauma may play a role in FNSD, they are not required for diagnosis.

Terms associated or previously used to describe FNSD include *conversion disorder, functional movement disorder, functional neurological disorder, pseudo-seizure, and psychogenic non-epileptic seizures.*

Several subtypes of FNSD exist and can include motor, sensory, and cognitive symptoms such as:

- Irregular movements such as tremors, muscle jerks, tics
- Weakness, paralysis, difficulty walking
- Functional seizures*
- Alterations in speech such as slurring, stuttering
- Swallowing difficulties
- Abnormal sensations such as numbness, tingling, pain
- Changes in sensory perception affecting vision, hearing, smell
- Difficulty with memory or concentration

*Functional seizures can share similarities with epileptic seizures, but their symptoms are not the result of an abnormal misfiring of cells disrupting the brain's electrical activity. Distinguishing between the clinical symptoms of the two can be challenging, but a diagnosis of functional seizures is confirmed using comprehensive history and video electroencephalography (EEG) evidence.

Treatment using a biopsychosocial framework is important to address the interconnected aspects of the brain, mind, and body. Young people with these symptoms usually do show improvement over time with appropriate interventions. Collaboration with psychology, psychiatry, occupational therapy, physical therapy, and speech therapy may also be beneficial. School teams must be part of this multidisciplinary effort as an important component of recovery is utilizing coping mechanisms to resume a school routine. The reaction and response to the student from those around them can have a significant impact.

Top Takeaways for School Considerations

FNSD is a condition of the nervous system causing a variety of physical, sensory, and cognitive symptoms. It is not a mental health disorder.

The goal is for the student to learn to manage their symptoms independently. Anticipate fatigue and setbacks but continue to offer support to help the student achieve realistic goals

It is important to remember the student is not feigning or faking their condition. Validate the student is not willingly or consciously causing their symptoms. Encourage use of their coping mechanisms.

Work with the student to identify a safe space where they can independently manage their symptoms. Breaks should be brief (only a few minutes) with encouragement for the student to return to the previous activity.

Although a symptom of FNSD like functional seizures may appear worrisome, they do not indicate a medical emergency.

A **school response plan** can assist staff to minimize attention and disruption during the FNSD episode (see suggestions listed on next page).

Kennedy Krieger Institute's Specialized Health Needs Interagency Collaboration

The Specialized Health Needs Interagency Collaboration (SHNIC) program is a collaborative partnership between the Kennedy Krieger Institute and the Maryland State Department of Education.

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Considerations for the Individualized Healthcare Plan (IHP)

- Nursing diagnosis of impaired thought process, risk for disturbed sensory perception, fatigue
- Current diagnosed health condition including date of diagnosis, progress of disease process and other chronic health conditions
- Current medication and treatment orders (consider schedule, equipment needs and side effects)
- Activity (consider precautions but note that long-term use of adaptive aids/devices is not routinely recommended as they can prevent return of normal physical movement and strength)
- Consider emergency care plan(s) (ECP) and emergency evacuation plan(s) (EEP) as related to medical needs in the school setting, and staff education/training, as appropriate

Suggestions for School Response Plan

- ☐ Clear immediate area of hazards.
- ☐ Do not restrain student.
- ☐ Avoid sensory overload (refrain from providing physical comfort and contact).
- ☐ Minimize intervention or medical management (there is no need to time the episode or obtain pulse oximeter reading).
- ☐ Maintain a neutral and calm response. Recognize the student remains aware of their surroundings during and after an episode (can "read the room").
- ☐ Develop a simple verbal script with student that affirms their experience. *"You are having an episode. I will be here when you are ready to rejoin us."*
- ☐ Redirect attention of classroom peers. "*The student needs some time to work through this. Let's give them space and allow them to rejoin us when they're ready."*
- ☐ Offer reassurance and encourage return to activity.
- ☐ **Remind all staff that FNSD is not a medical emergency and avoid calling 911.**

Discussion Starters for Educational Team

1. Has the school staff been trained to implement the student-specific management/treatment plan?
2. Would the student benefit from evaluations or assessments in any of the following areas: physical therapy, occupational therapy, speech and language therapy, assistive technology, adapted physical education, functional behavior, psychology, neuropsychology, hearing or vision?
3. Does the classroom environment support the student's needs and/or equipment (e.g., desk/seating options, maneuverability space, flash pass for bathroom or guidance)?
4. Would the student benefit from additional academic support and/or modified education (e.g., copies of notes, extra time, reduced workload, simplified instructions, alternative formats for presentation of material, 504/IEP)?
5. Can rest breaks, safe spaces, or reduced stimulation times be built into the student's schedule?
6. Would schedule flexibility support the student?

Resources

Kennedy Krieger Institute: Neurology Program
kennedykrieger.org

FND Guide
neurosymptoms.org

FND Hope Functional Neurological Disorder
fndhope.org/

Functional Neurological Symptom Disorder Special Interest Group (FNSD SIG)
fnsdsigspp.wordpress.com/

Scan QR code or visit
KennedyKrieger.org/HealthInformation for more information.

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