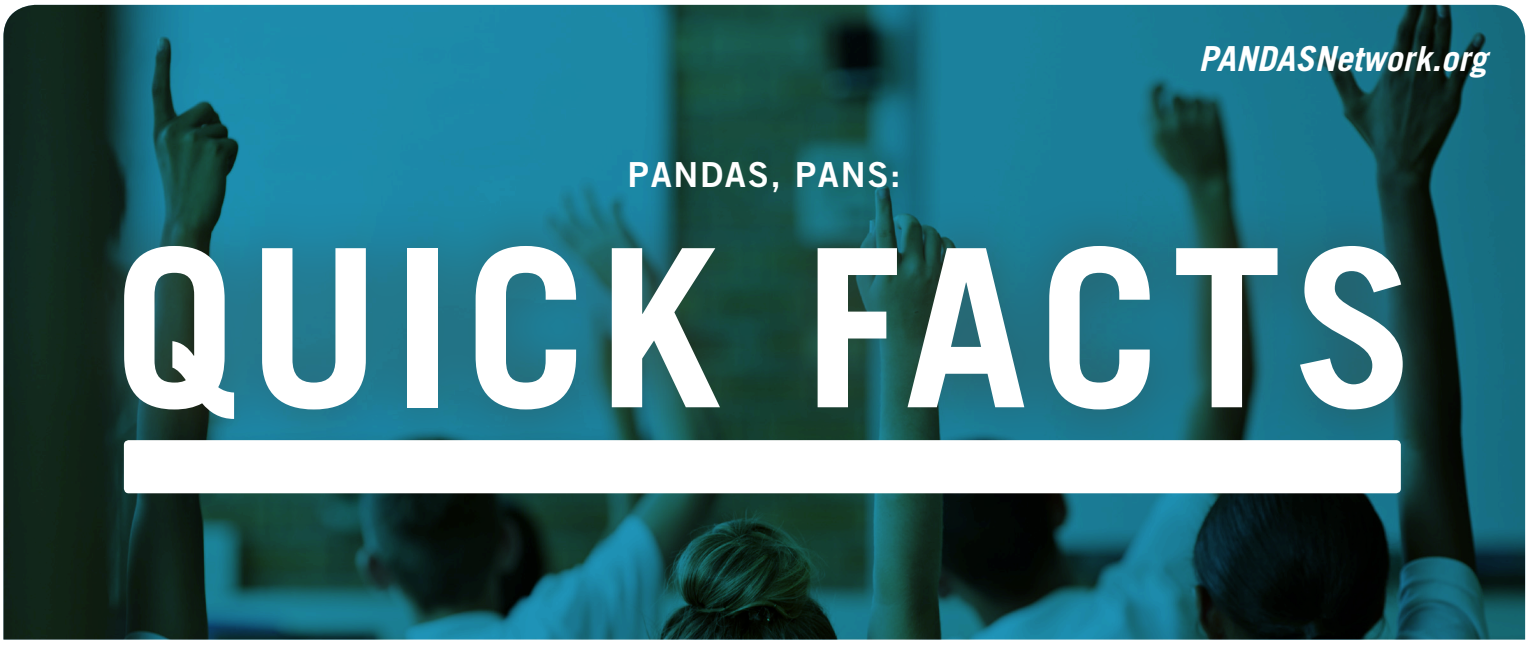

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PANDAS, PANS:

QUICK FACTS

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In collaboration with the PANDAS Network Working Group on Educational Access

What are PANDAS, PANS?

• Pediatric Autoimmune Neuropsychiatric Disorders Associated with Strep (PANDAS) and Pediatric Acute-Onset Neuropsychiatric Syndrome (PANS) are neuropsychiatric syndromes triggered by a faulty immune system response. Students may experience symptoms after a "strong stimulant" to the immune system (NIMH, 2012) such as strep infection, flu, or even the common cold. In a student with PANDAS or PANS, the immune system is thought to mistakenly react and cause brain inflammation in the basal ganglia region (NIMH, n.d.; Murphy, Girardi, & Parker-Athill, 2014).

• This reaction may cause neurological, psychological, and cognitive symptoms as a result of neurological inflammation (Chang et al, 2015).

• PANDAS and PANS may be treated with anti-inflammatory medications (such as ibuprofen), antibiotics to treat or prevent infection, and immune-modulating therapies (such as steroids, intravenous immunoglobulin (IVIG), and plasmapheresis (PANDAS Network, 2014). Self-calming strategies, cognitive behavioral therapies, and additional medications may also be important components of a student's treatment plan.

• More than other conditions, PANDAS, PANS and related conditions can produce sudden, uneven and unusual symptoms.

• PANDAS and PANS may co-occur with other autoimmune disorders, immune deficiency, or other neurological or psychiatric disorders. This can make treatment and management more complex.

COMMON SYMPTOMS

Anxiety, including separation anxiety from familiar people (parents, preferred teacher) or places (home or preferred classroom)

Obsessions and compulsions (e.g., need to sit in a particular spot, inability to tolerate certain activities

Tics or involuntary movements (may sometimes look like "fidgeting") or hyperactivity

Changes in handwriting and academic performance

Reduced attention span and in ability to focus

Changes in personality and behavior

Changes in eating and sleep habits

Increased sensory sensitivity

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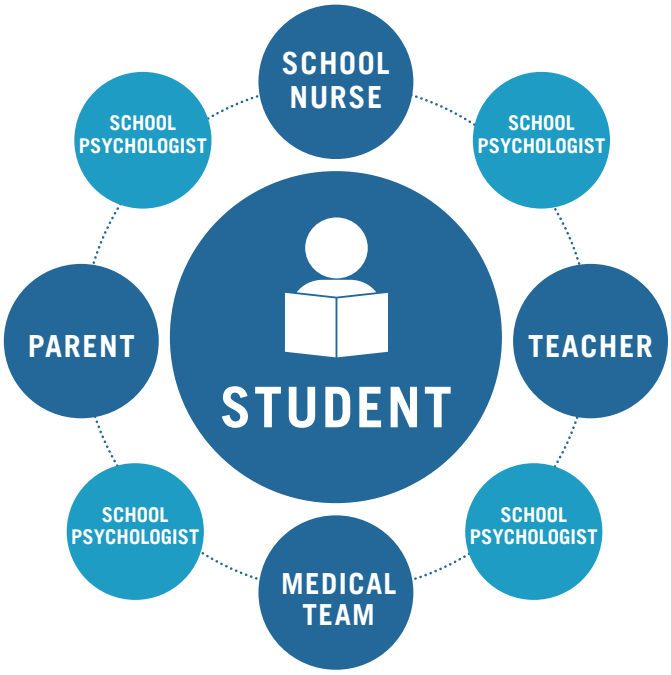
PANDAS, PANS AND RELATED DISORDERS:

SUPPORT

IN SCHOOL

BUILDING YOUR TEAM



KEY CONSIDERATIONS FOR SUPPORT:

Collaborate • Communicate • Assess Impact
Consider Accommodations & Complementary Services

Build a Supportive & Collaborative Team

that includes parents, teachers, special educators/specialists, the school nurse, school psychologist, administration and other relevant expertise.

Communicate Frequently & Share Updates with the Team

especially during winter months when flares are common. Discuss current treatment protocols and needs for accommodations and/or modifications.

Assess Impact of Symptoms on School Participation

Consider how symptoms may cause deficits in performance particularly in the areas of: Attendance (due to lack of sleep, fatigue); Cognitive issues affecting behavior, academics—including reading, writing and math; Sensory overwhelm (presenting as challenging behavior in overstimulating situations); Fine motor skills (handwriting and task completion); Perceptual and Physical issues (tics and other movements) that affect fine/gross motor skills; Urinary frequency; Ability to eat normally; Social issues with peers and more.

Consider Accommodations and Modifications

Consider attendance flexibility (shorter days during an uptick in symptoms, Skype classroom attendance during treatments, etc), alternative activities and placements, breaks in the day, testing modifications as needed.

Consider Complementary & Ancillary Services

Services may include Occupational therapy, Physical therapy, and Executive Function & Social skills support. If this is a new condition for your district, it can be helpful to talk with public or nonprofit agencies to see what parameters of services are typically available for students with related conditions such as traumatic brain injury (TBI), Tourette syndrome, and encephalitis or encephalitic conditions, etc.

PANDAS/PANS MAY IMPACT A STUDENT'S ABILITY TO:

- *Attend and travel to all school related activities*
- *Sustain focused attention and executive functioning*
- *Adapt to transitions and stresses*
- *Understand and remember information*
- *Communicate effectively, both orally and in writing*
- *Behave in age-appropriate ways*
- *Maintain prior level of physical and mental stamina*

PANDAS NETWORK
ADVOCACY, SUPPORT, & RESEARCH FOR PANDAS, PANS, AE

Some of the above excerpts drawn from " The Critical Importance of School Nurses in the Support of Students with PANS" by J. Candelaria Greene (2016). Distributed with Dr. Candelaria Greene's permission by the PANDAS Network Working Group on Educational Access.