GRANN Inc.

Gladstone Region Autistic & Neurodivergent Network Est. 2023

EXPANDED VERSION

Interoception, Autism, Nervous System Survival, Chronic Invalidation and Neuro-Affirming Practice

A GRANN Community Resource for Individuals, Families, Educators, Clinicians and Community

GRANN Inc. · Gladstone Region Autistic & Neurodivergent Network Inc · Est. 2023

THE CORE QUESTION

Rethinking Interoception

What if many autistic, ADHD and AuDHD people do not struggle with interoception because of an inherent neurological deficit… but because repeated invalidation, sensory trauma, chronic overload and unsafe environments taught them to disconnect from their bodies in order to survive?

Sometimes what professionals identify as dysfunction may instead reflect adaptation.

For decades, dominant autism discourse has interpreted differences through deficit-based frameworks. This library gathers research, lived-experience frameworks and emerging theory to help individuals, families and professionals understand body awareness, chronic invalidation and neurodivergent nervous system survival.

01

Understanding the Research

Frameworks for making sense of body awareness, invalidation and neurodivergent nervous system survival.

SECTION 1

Understanding Interoception

Interoception refers to the nervous system's ability to detect internal bodily sensations, including awareness of:

- Hunger & Satiety
- Thirst
- Pain Signals
- Temperature Regulation
- Heartbeat Changes
- Nausea
- Digestive Discomfort
- Bladder & Bowel Fullness
- Muscle Tension
- Fatigue & Exhaustion
- Emotional Arousal States

Autism literature often frames interoceptive differences as an inherent deficit — but this may overlook developmental learning environments and trauma-related adaptation.

SECTION 2

When Sensory Pain Is Mislabelled As Behaviour

Many autistic individuals experience sensory stimuli as genuine physiological pain. Not discomfort. Pain.

Fluorescent lighting triggering migraines

Perfumes causing nausea or vomiting

Clothing seams causing skin pain

Background noise causing physical distress

Food textures triggering gag reflexes

Crowded environments causing autonomic overload

Children frequently have these experiences interpreted as behavioural issues. But behaviour may be communication — the nervous system may be responding to genuine pain.

SECTION 3

Chronic Invalidation and Learned Body Distrust

When children repeatedly communicate pain and adults dismiss those experiences, powerful developmental learning occurs.

WHAT CHILDREN HEAR

“You're exaggerating.”

“You're too sensitive.”

“Everybody else is fine.”

“Stop complaining.”

“Ignore it.”

WHAT THEY LEARN

- Internal sensations are unreliable
- Bodily pain will not be accommodated
- Asking for help creates punishment
- Discomfort should be ignored
- Self-trust is unsafe

This can fundamentally alter the relationship between a person and their own body. Repeated invalidation can contribute to dissociation-based coping.

SECTION 4

Masking, Dissociation and Autistic Survival

Autistic masking often requires suppressing authentic bodily responses.

Masking Can Require

- Forcing eye contact despite discomfort
- Suppressing stimming despite regulatory need
- Enduring painful environments
- Ignoring hunger and fatigue to maintain performance
- Suppressing emotional overwhelm

Long-Term Masking May Contribute To

- Dissociation
- Reduced interoceptive awareness
- Depersonalisation
- Burnout
- Chronic exhaustion
- Identity fragmentation

SECTION 5

Autistic Burnout and Chronic Override of Body Signals

Autistic burnout may occur after years of forced nervous system override. Burnout often involves:

- **Loss of executive functioning**
- **Increased sensory sensitivity**
- **Reduced speech capacity**
- **Inability to recover through rest**
- **Emotional shutdown**
- **Cognitive collapse**

ONE UNDER-DISCUSSED FACTOR

Years spent overriding internal bodily needs — ignoring pain, fatigue, sensory distress, overload and exhaustion.

SECTION 6

Food, ARFID & Why “Picky Eating” Is Often Misunderstood

Avoidant Restrictive Food Intake Disorder is increasingly recognised in neurodivergent populations. Food refusal may reflect:

- Oral sensory pain
- Texture aversion
- Nausea
- Gastrointestinal inflammation
- Reflux
- Histamine reactions
- Mast cell activation responses
- Fear following painful eating
- Proprioceptive & oral-motor challenges

Not all food avoidance is behavioural. Sometimes food literally hurts. Sometime foods can be too inconsistent.

SECTION 7

Polyvagal Theory and Autonomic Nervous System States

Developed by Stephen Porges, Polyvagal Theory proposes that the nervous system continuously evaluates safety and threat. When environments repeatedly signal danger, the nervous system may enter protective states:

Sympathetic Activation

Fight or flight

- Hypervigilance
- Panic
- Overwhelm
- Sensory amplification

Dorsal Vagal Shutdown

Protective immobilisation

- Dissociation
- Numbness
- Reduced awareness
- Emotional flattening
- Cognitive shutdown

⚠ ***Polyvagal Theory is influential in trauma-informed practice, but some aspects remain debated within neuroscience literature. Treat it as a useful framework rather than settled consensus.***

SECTION 8

Somatic Theory and Body-Based Therapies

Somatic therapy focuses on restoring awareness of bodily sensations through breathwork, body scanning, grounding exercises, movement-based regulation, nervous system tracking and trauma release exercises.

“Reconnection is not automatically healing.”

Reconnecting with bodily sensation can feel threatening for neurodivergent individuals who have spent years suppressing body awareness to survive. For some, body awareness initially increases vulnerability.

THERAPEUTIC FOUNDATIONS MAY FIRST REQUIRE

- **Autonomy restoration**
- **Consent-based pacing**
- **Sensory safety**
- **Trust building**
- **Shame reduction**

SECTION 9

Alexithymia or Trauma-Related Dissociation?

Alexithymia frequently appears in autism literature. However, clinicians should ask:

- ***Is it alexithymia?***
- ***Or trauma-related dissociation?***
- ***Or chronic masking?***
- ***Or long-term sensory suppression?***
- ***Or a combination?***

SOURCES · Bird & Cook (2013) · Brewer et al. (2015)

SECTION 10

Neuroqueering Theory and Rejecting Deficit Frameworks

MEDICAL MODEL OF DISABILITY

~~*Assumes neurological differences represent pathology.*~~

NEURODIVERSITY PARADIGM

Neurological variation is part of human diversity.

Instead of: ~~*“Why can autistic people not regulate properly?”*~~

Ask: ***“What environments are demanding impossible forms of self-regulation?”***

SECTION 11

PDA and Autonomy-Based Nervous System Responses

~~*“Pathological Demand Avoidance”*~~ *is increasingly reframed as* ***“Persistent Drive for Autonomy.”***

Many autistic individuals experience direct demands as nervous system threats.

When a therapist asks “Where do you feel that in your body?” the question itself may trigger resistance, anxiety, shutdown or avoidance — not because the person refuses therapy, but because autonomy feels threatened.

SECTION 12

Autism, EDS, POTS and Chronic Health Overlap

Emerging evidence suggests higher overlap between neurodivergence and chronic health conditions, including:

Ehlers-Danlos Syndrome

Postural Orthostatic Tachycardia Syndrome (POTS)

Mast Cell Activation Syndrome (MCAS)

OVERLAP AREAS

- Hypermobility
- Chronic pain
- Autonomic dysfunction
- Fatigue
- Medication sensitivity
- Histamine reactions
- GI dysfunction

SECTION 13

Further Reading & Autistic-Led Organisations

KEY TEXTS REFERENCED IN THIS LIBRARY

- *Mahler — The Interoception Curriculum (2019)*
- *Levine & Frederick — Waking the Tiger: Healing Trauma (1997)*
- *Walker — Neuroqueer Heresies (2021)*
- *Kuschner et al. — Changes in food selectivity in children with autism (2015)*
- *Thomas et al.— ARFID clinical frameworks · recent advances in neurobiology and treatment (2017)*
- *PDA Society UK*
- *Ehlers-Danlos Society*
- *Hull et al. — Social camouflaging in adults with autism spectrum disorder (2017)*
- *Cook et al. — Camouflaging in autism: A systemic review (2021)*
- *Craig — How do you feel? Interoception: the sense of the physiological condition of the body (2002)*
- *Porges — The Polyvagal Theory (2011)*
- *Ogden — Trauma and the Body: A Sensorimotor Approach to Psychotherapy (2006)*
- *Singer — Neurodiversity: The birth of an idea (1998)*
- *Brewer et al. — The impact of autism spectrum disorder and alexithymia on judgments of moral acceptability (2015)*
- *Bird & Cook — Mixed emotions: The Contribution of Alexithymia to the Emotional Symptoms of Autism (2013)*
- *Raymaker et al. — Defining autistic burnout (2020)*
- *Cage & Troxell-Whitman — Understanding the Reasons, Contexts and Costs of Camouflaging for Autistic Adults (2019)*
- *Marco et al. — Sensory processing in autism: a review of neurophysiologic findings (2011)*
- *Robertson & Baron-Cohen — Sensory perception in autism (2017)*
- *Khoury et al. — Interoception in Psychiatric Disorders: A Review of Randomized, Controlled Trials with Interoception-Based Interventions (2018)*
- *Dysautonomia International*

This list is not exhaustive. Visit grann.com.au for more community resources and updates.

02

Guidance By Lived Experience

Practical, neuro-affirming guidance for the support networks surrounding a neurodivergent person — at school, at home, in clinics, and in friendship.

FOR SCHOOLS & EDUCATION SYSTEMS

Where Body Signals First Get Misread

Schools are often the first environments where neurodivergent children learn whether their body signals matter. Many systems prioritise compliance over nervous system safety.

A child covers their ears.

→ *Read as defiance.*

A child refuses uniform.

→ *Read as oppositional behaviour.*

A child becomes dysregulated under fluorescent lights.

→ *Read as behavioural escalation.*

A child cannot eat certain foods.

→ *Read as selective behaviour.*

Repeated exposure teaches children: “Your body is wrong.”

FOR SCHOOLS & EDUCATION SYSTEMS

What Schools Should Do

- Reduce sensory burden in classrooms
- Allow sensory accommodations without punishment
- Provide quiet regulation spaces
- Permit movement and stimming
- Eliminate compliance-based behavioural frameworks
- Avoid punitive attendance & participation expectations
- Train staff in sensory distress recognition
- Follow IEP’s & adjust with family where necessary

RELEVANT FRAMEWORKS WITHIN EDUCATION

Universal Design for Learning · *Trauma-Informed Education* · *Positive Behaviour Support*

***Critique:* behavioural systems, like positive behavioural support, frequently focus on observable behaviour while ignoring physiological distress.**

FOR TEACHERS

Ask A Different Question

Instead of: ~~“Why is this child refusing?”~~

***Ask:* “What is this child's nervous system communicating?”**

WARNING SIGNS OFTEN MISREAD

- Frequent bathroom avoidance or attendance
- Repeated headaches after school
- Unexplained fatigue
- Frequent meltdowns after sustained masking
- Shutdown during noisy group activities
- School refusal
- Food avoidance

Compliance is not wellbeing. Quiet children are not necessarily regulated children.

FOR PARENTS & CAREGIVERS

Help Rebuild Body Trust

Children develop body trust through relational environments. Messaging that encourages reducing a child's “over-sensitivity” can unintentionally reinforce body distrust. Parents can help by:

- Believing children's reports of discomfort
- Remaining curious about recurring patterns
- Tracking environmental triggers
- Reducing exposure where possible
- Validating pain even when invisible
- Avoiding punishment for physiological distress

If a child repeatedly says something hurts… assume there is information there worth investigating. Even when adults do not understand it yet.

FOR HEALTHCARE PROFESSIONALS

Question The Deficit Assumption

Many autistic patients experience years of medical invalidation, including:

- Pain dismissed as anxiety
- Gastrointestinal symptoms minimised
- Medication sensitivities ignored
- Sensory pain misunderstood
- Communication differences mistaken for low insight

Has this person learned not to trust internal sensations because repeated invalidation taught them their body could not be trusted?

Key frameworks: ***Trauma-Informed Care · Neurodiversity Paradigm***

FOR PSYCHOLOGISTS, COUNSELLORS & THERAPISTS

Pace Reconnection With Care

Somatic Therapy **Sensorimotor Psychotherapy** **Somatic Experiencing**

"Where do you feel that in your body?" *may trigger anxiety. Not insight.*

THERAPEUTIC WORK MAY FIRST REQUIRE

- **Autonomy restoration**
- **Consent-based pacing**
- **Sensory safety**
- **Rebuilding self-trust**
- **Decoupling bodily awareness from shame**

FOR FRIENDS, PARTNERS & ALLIES

Small Moments Teach Body Safety

AVOID SAYING

~~*“You're overreacting.”*~~

~~*“It's not that loud.”*~~

~~*“Everybody else is fine.”*~~

~~*“You need to push through.”*~~

INSTEAD SAY

“I believe you.”

“What does your body need right now?”

“Would changing the environment help?”

“How can I reduce sensory load for you?”

Small relational moments help teach people whether their body is safe to listen to.

COMMUNITY REFLECTION

Questions For Community Reflection

We invite community members to reflect:

- Were sensory experiences dismissed growing up?
- Were migraines, nausea or pain minimised?
- Did adults punish you for communicating physiological distress?
- Did you learn to ignore hunger, thirst, pain or exhaustion?
- Does reconnecting with your body now feel difficult or unsafe?
- Have professionals misunderstood your relationship with body awareness?

THE REFRAME

Perhaps the question is not:

~~*“Why do autistic people struggle with interoception?”*~~

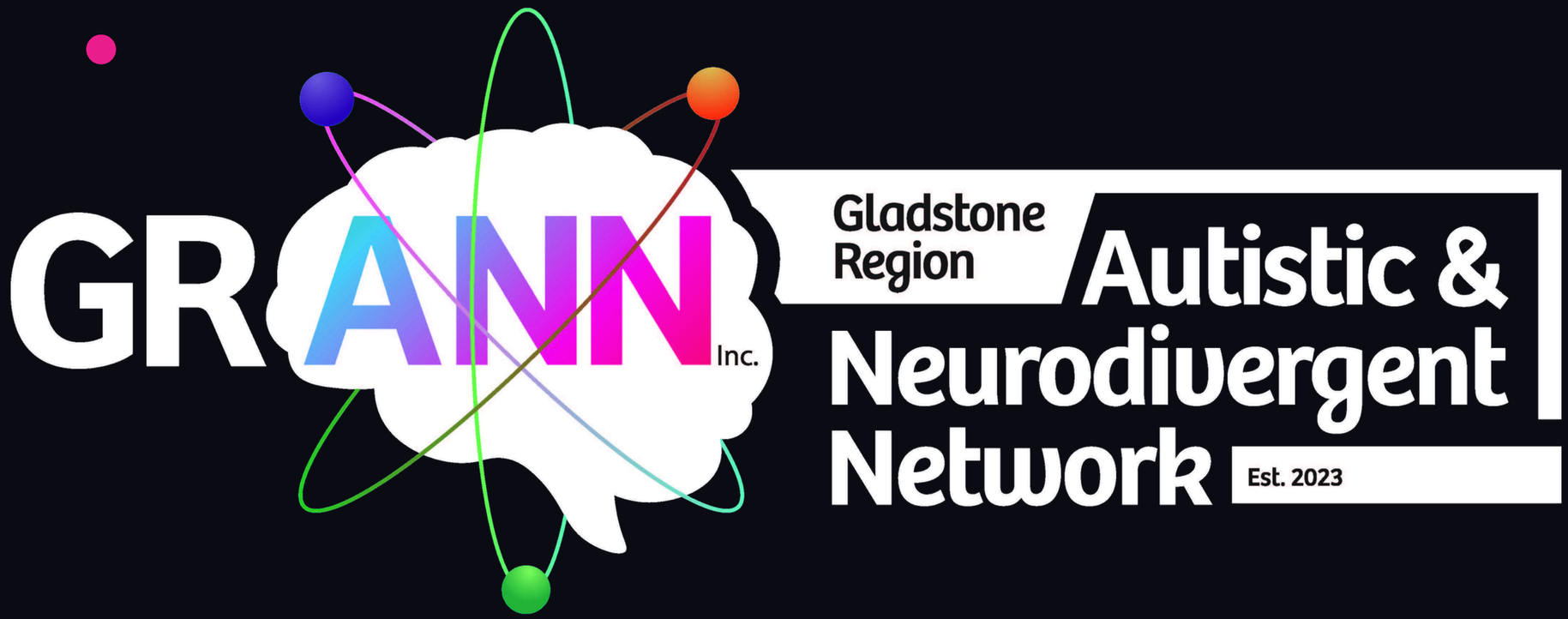
Perhaps the better question is:

“What environments taught neurodivergent people that listening to their body was dangerous, pointless, or unsafe?”

*Because sometimes what gets labelled disorder… **may be adaptation.***

*Sometimes what gets labelled deficit… **may be survival.***

And sometimes the nervous system has simply learned the only strategy available when environments repeatedly refused to listen.



Community. Advocacy. Change. Belonging. 🌻

grann.com.au

Gladstone Region Autistic & Neurodivergent Network Inc · Est. 2023