

GLOBAL LEARNING CONFERENCE DUBLIN 2023

# DIFFICULT CONVERSATIONS IN EDS & HSD



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DIFFICULT CONVERSATIONS  
IN EDS & HSD

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#

PRESENTATION

## Considering Physical Therapy Modalities with the Highly Sensitive Patient:

A Review of Modalities Used and Modifications That Could  
Benefit rather Than Flare the Patient

SPEAKER

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# What Are Physical Therapy Modalities?



Modality: A type of therapeutic agent that may assist with therapeutic treatment of a patient.



# Physical Therapy Modalities

- Exercise (passive or active)
- Electrical stimulation
- Ultrasound
- Traction
- Manual therapy techniques
  - Joint mobilizations
  - Soft tissue mobilization/massage
  - Positional release
  - Muscle Energy Technique (MET)
  - Myofascial release
  - Manual lymphatic drainage
  - Craniosacral therapy
  - Instrument Assisted Soft Tissue Mobilization (IASTM)
- Heat/Ice
- Iontophoresis
- Laser or light therapy
- Taping/Bracing
- Frequency Specific Microcurrent
- Dry Needling
- Aquatic therapy
- Education
- ...and many more...



# Understanding the Patient's Layers with HSD/EDS



- Trifecta of EDS/MCAS/POTS (connective tissue/immune system and inflammation/nervous system)
- Complexity of MCAS- dysautonomia, illnesses, chronic infections, chronic GI issues, toxin exposures, etc
- Complexity of the ANS – HR response, GI motility, blood pressure, sweating response, temperature regulation, etc.; correlations with ADHD, anxiety, Autism, other psychological diagnoses
- Other coexisting conditions: upper cervical instability, tethered cord syndrome, tarlov cyst syndrome, MALS, spinal or cranial CSF leaks, etc.

*They can all influence each other and influence the way a patient with EDS responds to interventions!*

# What Influences a Patient's Response to Interventions?



## So What is the Problem with Modalities?

- Some modalities may intentionally cause an inflammatory response in attempt to induce, or promote, a healing response. (Mast cells and mediators)
- Some modalities may trigger dysautonomia reactions if the ANS is dysregulated or not properly responding to input. (Dysautonomia/Autonomic Nervous System)



# What is the Solution with Modalities?

- The provider must understand the patient's level of re-activity in regards to their systemic and local responses of both the immune and nervous system.
- This can help determine the most efficient modalities for the individual at any given time.





# Primary Determining Factors of How to Approach a Patient



- **Inflammatory/immune response**

- Typically we want an inflammatory response in many manual strategies to help stimulate the process that leads to rebuilding tissue, but this can go wrong with *abnormal inflammatory responses*

- **Nervous system response**

- Depends on how the nervous system integrates the information that is put into it
- *How is the nervous system sensing the input?*
  - Homeostasis?
  - Fight or flight?
  - Freeze?



# Reviewing Some Modalities...

- Education
- Manual therapy/soft tissue mobilization
- Dry needling
- Aquatic therapy
- Taping



# Education

- Consider as a primary intervention with all patients
- Education is a modality itself
- The more the patient understands, the more they will be able to use their tools provided appropriately and in the future as well
- Behavioral and educational interventions seem to be more effective than proprioceptive exercises in addressing chronic neck and low back pain (McCaskey et al. 2014)



# Soft Tissue Mobilization Overview



## Massage Types

- Lymphatic drainage
- Myofascial release
- Bioenergetics
- Neuromuscular massage
- Ortho-bionomy
- Polarity therapy
- Trigger point massage
- Cupping
- Stone therapy
- Deep tissue
- Rolfing
- Reflexology
- Shiatsu
- Healing touch
- Craniosacral...

# Soft Tissue Mobilization Overview

Differences can be found in:

- How it is applied
  - Instrument assisted
  - Hands-on (therapist or self applied)
- Speed in which it is applied
  - Still pressure only to rapid strokes
- Amount of force used
  - Energy or hands-off approach to deep pressure



# Manual Therapies: Deep Tissue and Instrument Assisted



- Neural Inflammation, neural sensitivity, and neural tension
  - The practitioner should avoid applying direct, manual pressure on more superficial irritated nerves
- The nervous system is responsible for interpreting whether something is safe, or a threat
- A nervous system with altered perception and translation may interpret the deeper techniques as a “threat” and trigger a protective response from the ANS
- Foam roller responses are based on the starting state of the autonomic nervous system

# Manual Therapies For an Over-Responsive System (Sympathetic States)



- Soft tissue mobilization such as Swedish/effleurage, myofascial release
- Trigger point release with manual gentle pressure (the weight of a pineapple max, 1kg)
- Positional release strategies
- Lymphatic work
  
- These interventions can feel good and decrease sympathetic activity  
→ decreased sympathetic activity may decrease the fight-or-flight input to the big power moving muscles that typically lead to muscle imbalances when hypermobility is present → this can improve the localized tissue dysfunction

# Trigger Point Vs. Positional Release



## Trigger Point

- Deep, achy, and radiating in a familiar distribution to that trigger point
- Responds better to deep pressure/weight of a pineapple

## Positional Release

- Indirect method, good for sensitized areas for tender points that feel sharp, like a bruise
- Usually positioned into the greatest slack in one direction and stretch in another plane
- Often is the position that will normalize joint position
- Holds up to 90 seconds



# Dry Needling



- This causes a localized inflammatory response – therefore be careful in patients with local or systemic inflammatory reactions (uncontrolled MCAS)
- Effectiveness seems to be in the trigger point release
- When releasing muscles around an unstable joint - this must be followed up with neuromuscular, proprioceptive, or stability work
- This modality works best in tandem with others

Wang & Stecco 2021; Drescher, Rivera, Eberman, 2021 , Baraja-Vegas et.al., 2019, Fernández-de-Las-Peñas, C., & Nijs, J. (2019).



## Aquatic Therapy

- Drag may be irritating to painful joints
- Chemicals in the water may be triggering to someone with uncontrolled MCAS reactions
  - Window ventilation can be helpful in the facility
  - Time limitations may be helpful
- Temperature regulation may be an issue for those with dysautonomia
  - Look for appropriately tolerated temperatures
  - Time limitations may be helpful
  - Reduce temperature fluctuations with time on pool deck or when transitioning in and out of the shower

Russek, L, Stott, P., & Simmonds, J., 2019

Mustchin, C. P., & Pickering, C. A., 1979

Angelini, G., Bonamonte, D., Angelini, G., & Bonamonte, D., 2002

Thickett, K. M., McCoach, J. S., Gerber, J. M., Sadhra, S., & Burge, P. S., 2002.

# Taping

- May cause local or systemic MCAS reactions
  - Pre treat with topical agents that may reduce histamine reactions on the skin
- May tear the skin in removal
  - Applying heat before removal of the tape may be helpful in protecting skin that tears more easily



# Specialty Trainings

- Positional release therapies
- Visceral Manipulation
- Neural Manipulation
- Craniosacral Therapy
- Postural restoration
- Feldenkrais



# Summary



- DO NO HARM
- Less is more - precision over quantity of interventions
- Evaluate the state of inflammatory and nervous system responses first then determine what the individual may tolerate and benefit from, rather than react to
- The best in-the-moment treatment option may be very different than what we “think” is needed

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Thank you  
for listening