Integrating Manual Therapy, Communication and Somatics: Enhancing Our Repertoire for Improved Pain Outcomes

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Somatics: Definition

• Practices in the field of movement studies that emphasize internal physical perception. The term is used to signify approaches based on the soma, or "the body as perceived from within.

Thomas Hannah, PhD (1928-1990)

• "What are you doing.....how?"

Moshe Feldenkrais, DSc (1904-1984)
Somatics

- Yoga
- Alexander Technique
- Physical Therapy
- Feldenkrais Method
- Pilates
- Aikado
- Tai Chi
Physical Therapy Applications

• Neuro-muscular Re-education / Education
• Guided Self-Discovery vs. Prescriptive Authority
• Outcomes
  • Sensorimotor Learning
  • Pain relief
  • Enhanced body awareness
  • Improved functional abilities

• i.e., What to do after the “pop” / stick / MT intervention
Organic Learning

That which “is slow and unconcerned with any judgments as to the achievement of good or bad results. It has no obvious purpose or goal. It is guided only by the sensation of satisfaction when each attempt feels less awkward as the result of avoiding a former error which felt unpleasant or difficult. Learning should be a pleasant, marvelous experience.”

Moshe Feldenkrais
Awareness Through Movement®

**Definition:** Verbally directed movement lessons that help learners (patients) become more aware of habitual movement tendencies.

**Premise/Theory:** Repeatedly attending to **body pattern sensorimotor tendencies** leads to heightened body awareness, more efficient recruitment patterns, improved function and reduced pain.

**Process:**
- Introduce an intentional movement / a pattern of intentional movements
- Identify somatic responses
- Explore variations focusing on ease and quality
- Reflect on the experience
- Apply to functional activities
Manual Therapy Applications

• Differentiated/Undifferentiated Mobilization
  
  • **Definition:** Gentle/safe handling techniques designed to enhance somatic awareness and normalize neuromuscular recruitment to decrease pain and improve functional abilities.

  • **Process:**
    • Examination to identify habitual faulty recruitment patterns (tendencies).
    • Intervention to introduce safe alternatives using first undifferentiated motions and progressing to differentiated motions.
Body Awareness Training Summary

• Humans function in patterns.

• Patients with persistent pain exhibit dysfunctional whole-body patterns.

• These patterns are identifiable and patients respond favorably and quickly to whole-body pattern interventions.

• Curious exploration primarily via question-asking and reflection.
Intentional Communication

FACILITATING SOMATIC CHANGE
“One of the principle qualities of pain is that it demands an explanation.”

- Plainwater, by Ann Carson
Explanation Components

• Pain Function
• Pain Biology/Physiology
• Pain, Threat and Meaning
• Safely Promoting Resolution

“If the sequence is frustrated at any stage, the sensation and posture remain.”

Patrick Wall
“Sometimes our bodyguard can be a bit overprotective, and our fears can increase this problem by creating more attention to movement and sensations.”

“When normally we go about our day without noting more than a passing sensory experience, painful problems can amplify sensations to try to bring our attention to the problem, and making our movements more limited than they may need to be to protect us.”
Pain Function: Alarm System and Sensitization

Alarm system is more sensitive

- Easier to “hear” what’s going on in the tissues.

http://www.whirling-dervish.co.uk/media/accessories/tjwl-ankle-bells.jpg  
http://s274792694.onlinehome.us/productImages/3207A.jpg
Pain Biology and Physiology

Figure 1. Factors that contribute to the patterns of activity generated by the body-self neuromatrix, which comprises sensory, affective, and cognitive neuromodules. The output patterns from the neuromatrix produce the multiple dimensions of pain experience as well as concurrent homeostatic and behavioral responses.
“Perception is the brain’s best guess about what is happening in the outside world. Perception is inference.”

From: Scratching an Itch Through the Scalp to the Brain - Atul Gawande
Pain Biology/Physiology

• “At the cortical level, incoming overestimations of risk would result in high error signals, leading to re-estimates of risk in the face of experience and other supervening contextual information, as well as re-weighting of signals to reflect error correction.”

Pain, Threat and Meaning

• “How dangerous is this really?” (Mosely)
Pain, Threat and Meaning

• V.O.M.I.T.
  (Victim of Medical Imaging Technology)

• “Images tell me how you look. I’m more interested in how you feel.”

• Jason Silvernail, DPT
Safely Promoting Resolution

• Accomplished through central inhibition by communicating non-threatening sensory input in a “safe” social/psychological/cultural context.

• “The insula may be involved in re-weighting the tissue-damage-risk estimates carried by thalamic nociceptive signals, possibly by dynamically setting the gain on nociceptive signal processing.” Morrison I, et al. (2013)
Communication Strategy #1: Listen

- Let the patient tell their story
  - Validate the reality of their suffering
  - Use caution with pain scales
  - Expression is part of the pain experience

Pain is unique – their story is their unique experience, and can provide insight into the unique barriers they may be facing toward moving into resolution.
Listening specific ally for: Fears

◦ “I’m afraid I’ll fall.”
◦ “I don’t think I’ll ever try ________ again.”
◦ “My family/therapist/doctor told me not to ________.”

Addressing:
◦ Find out prior experiences and address with education, breaking down the task, imagined practice and then safe context practice to “real” life experience.
Listening specific ally for: Anxiety

When you refer to, look at, or approach their painful part (withdrawal, heightened attention, breath holding)

Addressing:
  ◦ Approach indirectly – adjacent or contralateral areas
  ◦ Purposefully include contact into pleasant experiences – touch their leg or arm when they tell you something funny
  ◦ Have them note their responses w/o judgement
Listening specific ally for: Locus of Control

“It’s the car” “It’s hereditary” “It’s the weather”
- Unpleasant environments can influence how the body responds to movement/stimulation, but the underlying cause is that the nervous system is too ramped up to let you travel, let you move on a rainy day. These influences are not a cause of pain, but may be an influence over your body’s need to protect you.

“I’m getting old” “It’s bone on bone”
- Responses:
  - Wrinkles on the inside are no more harmful than ones on your skin – VOMIT poster to refer to common findings
  - “MOTION IS THE LOTION” for sticky parts
Listening specifically for: Somatic References

How they refer to their body ("it hurts all the time" "the arm" "that stupid leg again")

◦ Reframe that their body is protecting that part from harm or the potential for more harm

◦ When asking follow-up or referring to the part, use “she/he” or “your” and refer to the side to assist the brain with identification of the location and differentiation of the part as part of them and unique.
Communication Recommendations

• Speak in terms of the findings or conditions as changeable vs. permanent or fixed.
  ◦ “Tonic” vs. “Tight” – responsive process vs. contracture
  ◦ “Tender Spots” vs. “Trigger Points” or “Fibrous Bands”
  ◦ “Irritable” vs. “Painful”
  ◦ “Responsive” or “Protective” vs. “Sensitive”
  ◦ “Soften” vs. “Release”
  ◦ “Lengthen” vs. “Stretch”
  ◦ “Strain” vs. “Tear” and “Effortful” vs. “Weak”
Somatics Application

• Facilitate patient’s awareness of belief patterns, communication patterns, emotional patterns, and sociological behavior patterns. This occurs primarily through a curious line of questioning.

• “Homework” to explore and self-identify patterns and develop alternate patterns to expand their response repertoire.
Case Study

• 58 y.o. male
• Bilateral Morton’s neuromas
• No benefit from surgery, pharmacology, PT, Orthotics, etc.
• Dx: CRPS bilateral feet
• Communication challenge: Ingrained patterns as a primary contributing factor to his pain experience.
Audience Participation

• Audience members as patient.
• Stephanie as patient teacher.
Summary

• **Ultimate goal:** Altering the somatic representation of the patient’s individual pain experience.
  - **Body Awareness Training**
  - **Intentional Communication**

• **Outcomes:**
  - Decreased pain
  - Increased self-awareness and internal locus of control
  - Improved functional abilities
Related Evidence


THANK YOU!