INFORMING STUDENT SELECTION OF OUTCOME MEASURES FOR EVALUATING PAIN IN THE BIOPSYCHOSOCIAL PRIVATE PRACTICE CONTEXT

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How do your students

<u>assess</u>
and
<u>interpret</u> the meaning
of a <u>specific</u>
patient's
pain presentation?

- Where/How is the student's pain assessment *mapped* into the IFOMPT Standards Document?
  - Evidence Based incorporating
    - Pain Science Theory
    - Measurement Methods
    - Includes the entire patient i.e. their complete biopsychosocial entity
- How is this demonstrated to the External Assessor?
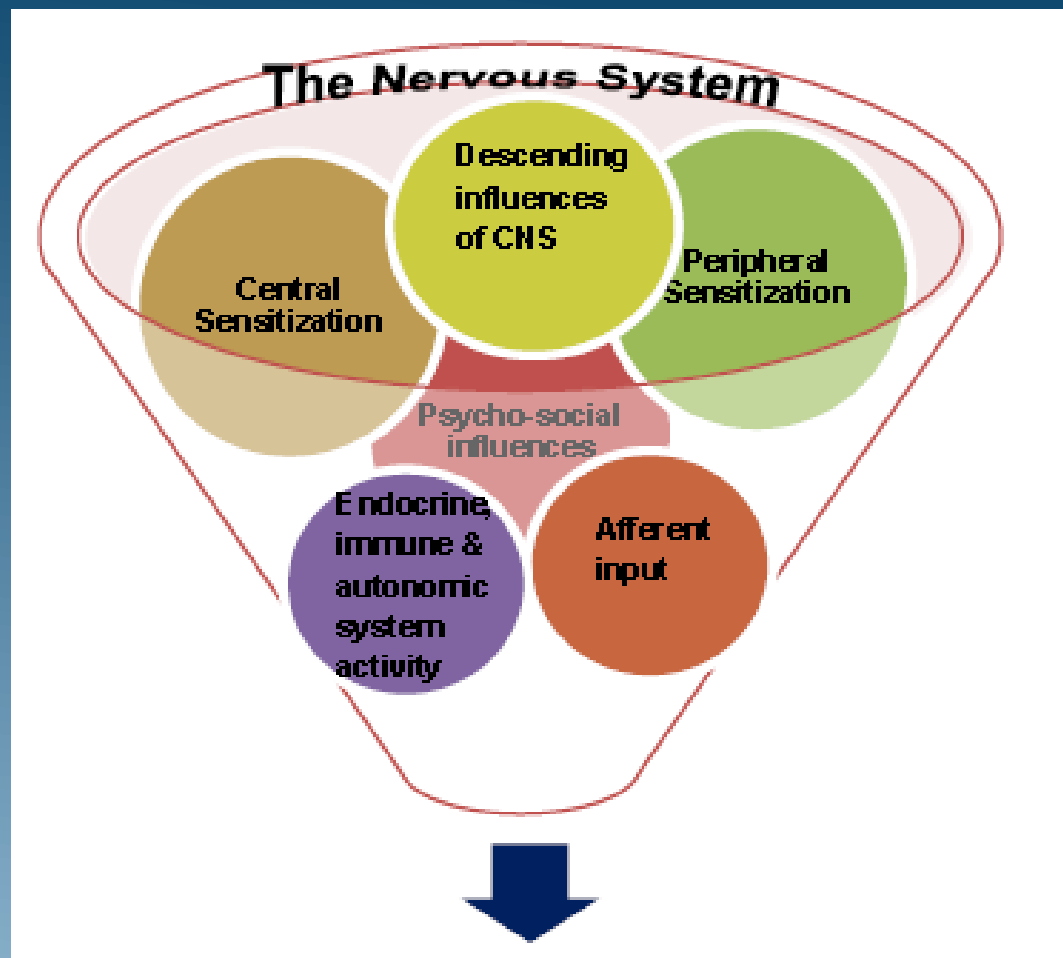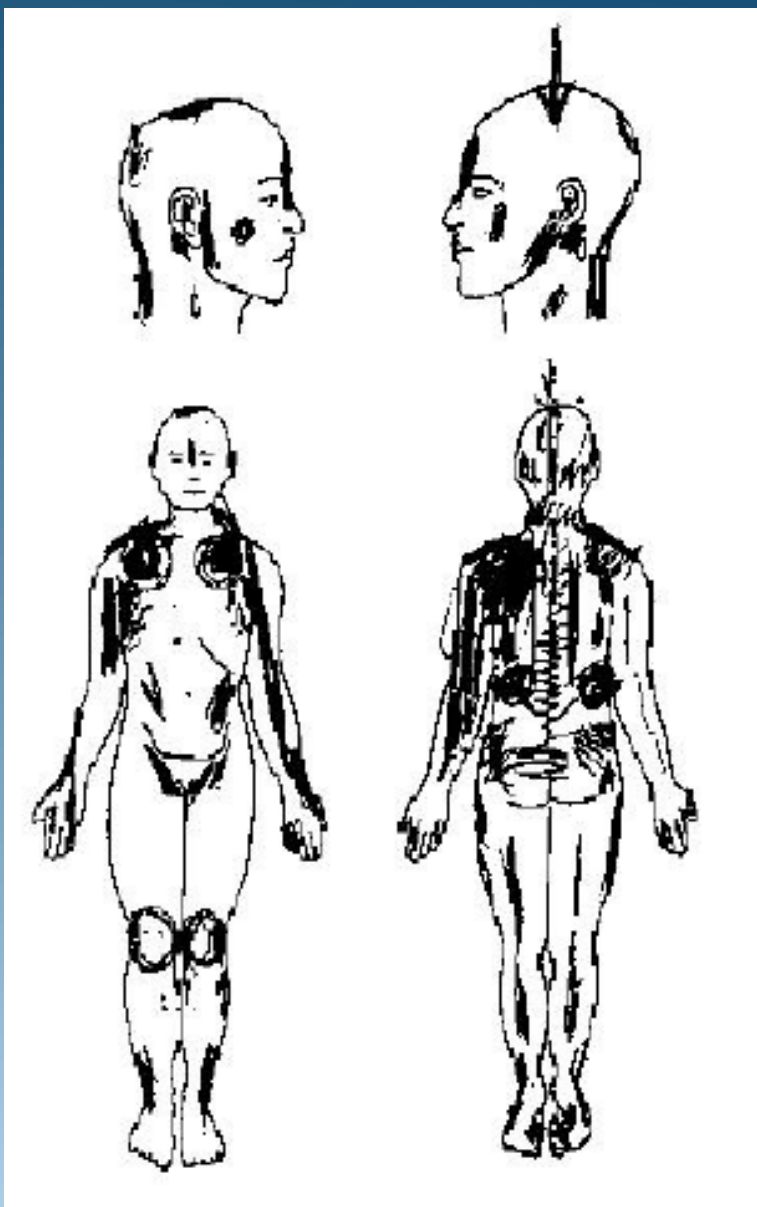
PATIENT PAIN PRESENTATION

▶ What

… subjective **data**

is required to differentiate

pain mechanisms involved in

THE patient presentation?

Classification	Central Hyperexcitability	Nociceptive pain	Peripheral neuropathic pain
Mechanism	"CSP is an amplification of neural signalling within the central nervous system (CNS) that elicits pain hyper- sensitivity" (Smart, Blake, Staines, Thacker, & Doody, 2012a, p. 336).	"NP is referred to as pain attributable to those pathophysiological processes associated with activation of the peripheral receptive terminals of primary afferent neurones (Ad and C fibres) in response to noxious chemical (inflammatory), mechanical or thermal stimuli" (Smart, Blake, Staines, Thacker, & Doody, 2012c, p. 352). **Somatic referred pain** is noxious stimulation of somatic structures can produce referred pain in addition to local pain. The pain spreads is perceived in regions innervated by nerves other than those that innervate the site of noxious stimulation. (Bogduk, 2006)	"PNP refers to pain attributable to a lesion or dysfunction in a peripheral nerve, dorsal root ganglion or dorsal root arising from trauma, compression, inflammation or ischemia" (Smart, Blake, Staines, Thacker, & Doody, 2012b, p. 345). **Radicular referred pain** is pain evoked by ectopic discharges emanating from a dorsal root or its ganglion of the spinal nerve (Bogduk, 2006).
Characteristics and symptoms	Disproportionate. Non-mechanical. Unpredictable pattern of pain provocation in response to multiple/non-specific aggravating/easing factors. Pain disproportionate to the nature and extent of injury or pathology. Strong association with maladaptive psychosocial factors (e.g. negative emotions, poor self-efficacy, maladaptive beliefs and pain behaviours).	Pain localised to the area of injury/ dysfunction (with/without some somatic referral). Clear, proportionate mechanical/anatomical nature to aggravating and easing factors. Usually intermittent and sharp with movement/mechanical provocation; may be a more constant dull ache or throb at rest. The absence of pain in association with other dysesthesias, night pain/disturbed sleep, antalgic postures/movement patterns and pain variously described as burning, shooting, sharp or electric-shock-like.	Pain referred in a dermatomal or cutaneous distribution. History of nerve injury, pathology or mechanical compromise. Radicular referred pain is often described as distinct, lancinating quality, which travels the length of the limb and is no more than 2-3cm wide.
Author	Smart et al (2012a) Part 1 of 3.	Smart et al (2012c) Part 3 of 3	Smart et al (2012b) Part 2 of 3

▶ What data is required to differentiate pain mechanisms involved in <u>THE</u> patient presentation

1. <u>What</u> SUBJECTIVE assessment tool(s) do students use to differentiate patient's pain & inform the rest of assessment / treatment?

2. <u>How</u> does the student receive knowledge regarding these assessment tools?

3. How does the programme <u>evaluate the usage</u> of these tools?

► What
… <u>physical</u> examination **data** do your students collect to <u>inform</u> their understanding of THE patient's pain?
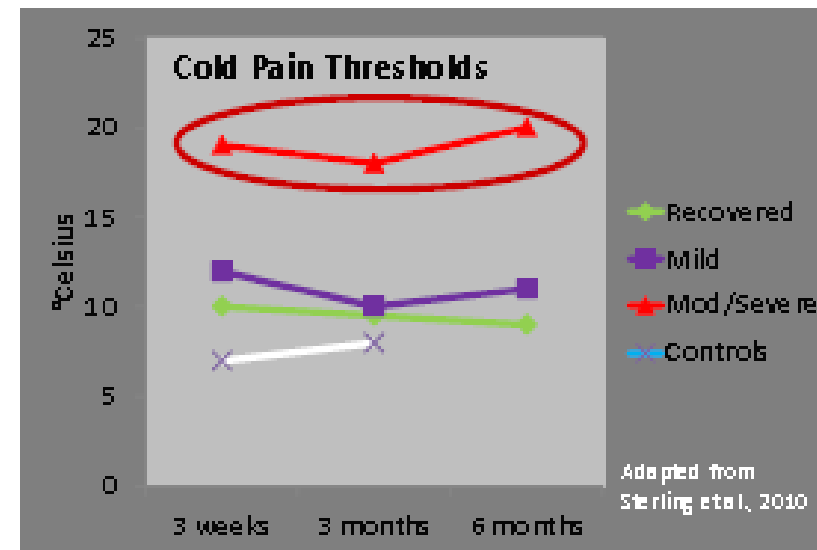
Quantitative Sensory Testing
TSA II Neurosensory Analyser
(Medoc, Advanced Medical Systems)

Temperature at which patient first feels a painful heat/cold pain Threshold

Differential development of sensory hypersensitivity and central hyperexcitability

Central hyperexcitability results in widespread cold hypersensitivity

Predictive of poor outcome – Kasch et al., 2005; Wallin et al., 2008; Sterling et al., 2006
Occurs only in those with persistent moderate/severe symptoms – PCS?

Slide permission: Ashley Smith

Clinical Correlate

Ice Water Immersion
Mod/Severe NDI< 40secs
Keech et al, 2005
10 sec application of Ice
(VAS>5/10)
Maxwell, 2012

Slide permission: Ashley Smith

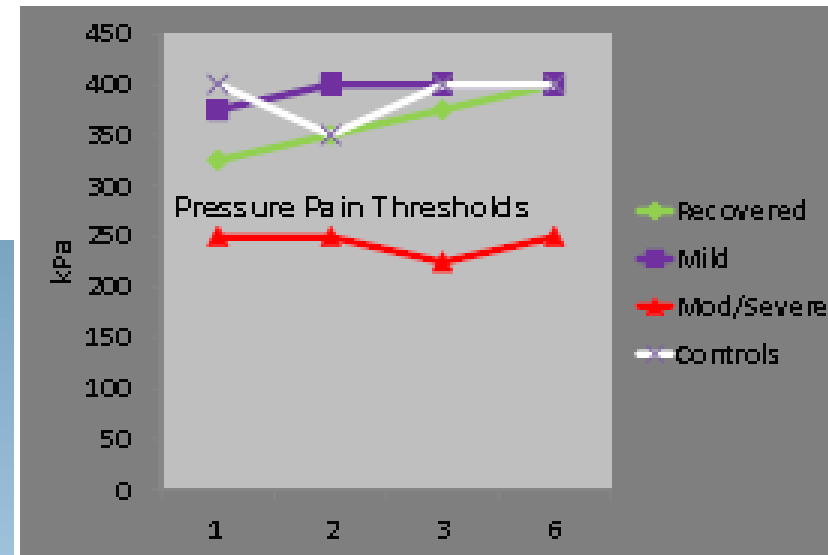# More Quantitative Sensory Testing
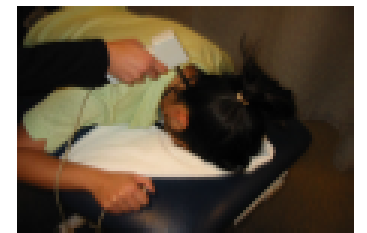## Electronic Pressure Algometer
(Somedic AB)

Point at which patient indicates feeling of pressure becomes painful

Prospective Clinical Data
Sterling et al., 2003

Pressure Pain Thresholds

- Recovered
- Mild
- Mod/Severe
- Controls

Local – over site of injury/pain
Peripheral Sensitization

Remote – away from site of injury/pain
CNS changes

Slide permission: Ashley Smith

Clinical Correlate - Algometric measurement:

Pressure pain thresholds (PPT):

Lacourt TE et al, 2010
Fischer A 1987

"Cheap" algometer fpk 20 $175-250.00 usd www.paintest.com

▶**Challenges associated with making & teaching clinical correlations from the data:**

…

MEANINGFUL PATTERNS

Quantify and justify the *clinical reasoning*!

- What evidence is there that this **patient** will have a suitable outcome?

  - What evidence is there that this **student** will have a suitable outcome?

    - What evidence is there that the **EA** will be able to include in their report?

THANK YOU

COLLABORATIVE
BRAIN STORMING …