Pathoanatomy vs Psychosocial– Back to the Future?

With Dr Mark Laslett, Dr Angela Cadogan & Flavio Bonnet

On the 18th March 2019, Dr Mark Laslett and I were involved in a live social media discussion about the relationship between patho-anatomic diagnosis and psychosocial factors hosted by Flavio Bonnet from the Agence EBP.

We streamed live on Facebook, Twitter and Instagram (in English) from Christchurch, New Zealand. The event was viewed by more than 7,500 people from around the world.

We discussed four main topics. In this series I have provided a summary of the transcript for each topic.

1. Is it possible to make a diagnosis?
2. Does the pathoanatomic approach ignore the psychosocial aspect of the pain experience?
3. What do you say to colleagues who say that diagnosis does not change treatment?
4. How does imaging relate to diagnosis?

Link to video on Twitter: https://twitter.com/marklaslett_NZ/status/1107733389300240384

PART 2: Does the pathoanatomic approach ignore the psychosocial aspect of the pain experience?

2.1 Is there a difference in psychosocial aspects between the shoulder and the lumbar spine? We see more in the literature that central sensitization affects the upper limb compared with the lower limb, what are your thoughts?

2.2 Do you think it is possible to make a pathoanatomic diagnosis in someone who has significant psychosocial factors?

SUMMARY:

- *Central sensitisation and psychosocial factors are modifiers of pain, not a cause of pain.*
- *Persistent pain does not always mean 'central sensitisation'.*
- *Persistent pain may reflect persistent pathology.*
- *It is possible to reach a pathoanatomic diagnosis in someone with significant psychosocial modifiers,*
  - *but they may confound pathoanatomic diagnosis.*
  - *it (diagnosis) must be carefully worded and communicated to the patient.*
- *Pathoanatomy would take priority for management in serious injuries such as unstable fractures or dislocations.*
- *Significant psychosocial factors should be prioritised early in treatment as they may present a barrier to recovery*

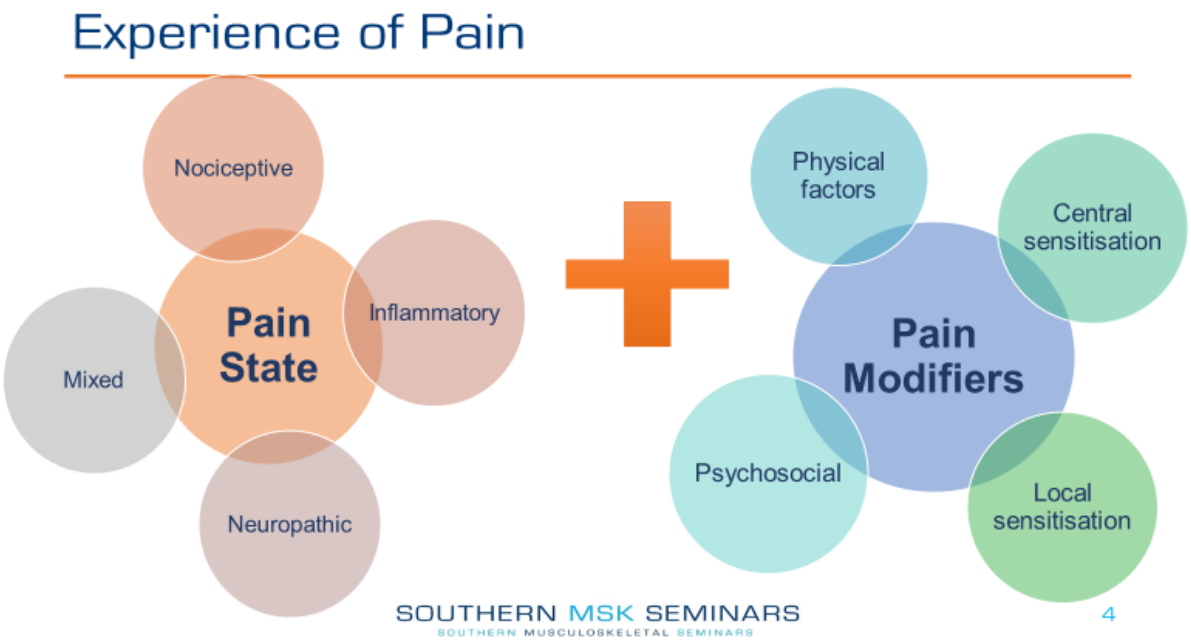
PART 2. Does the pathoanatomic approach ignore the psychosocial aspect of the pain experience?

Dr Mark Laslett:

- Psychosocial does not ignore pathoanatomic diagnosis, in contrast it is actually **part** of it. (See the diagnostic triangle 1.1).
- Our study (2005) using a provocation discography was one of the first studies to identify the influence of psychosocial factors (distress and disability) on the diagnosis of low back pain:
    - When the patient was distressed (as identified by the Distress Risk Assessment Method), the specificity of centralisation for the diagnosis of discogenic pain reduced by up to 15 per cent.
    - If the patient was severely disabled (measured on the Roland-Morris score) specificity dropped by up to 20 per cent

Dr Angela Cadogan:

- Psychosocial factors are one of several potential **modifiers** of
    - Pain processing/symptoms
    - Diagnosis
    - Prognosis



- Chronic or persistent pain is associated with psychosocial factors, but there is no cause and effect relationship
- Patient expectation/beliefs is one of the strongest predictors of outcome in patients with shoulder pain, whether or not there is a clear pathoanatomic diagnosis.
- The presence of psychosocial factors does not preclude a patho-anatomic diagnosis
    - Patients with an acute injury can have significant psychosocial factors
    - Some patients with persistent pain have very few psychosocial factors
- I assess idea social factors as I would any other impairment using validated tools where these are available. Patient cognitions, beliefs, expectations and past experiences cannot be measured without outcome tools and require the development of a therapeutic relationship with the patient to extract the required information.

2.1 Is there a difference in psychosocial aspects between the shoulder and the lumbar spine? We see more in the literature that central sensitization affects the upper limb compared with the lower limb, what are your thoughts?

Dr Angela Cadogan:

- There is a lot of misunderstanding about central sensitization. Central sensitisation is a **modifier** of pain. Pain can be caused by a number of peripheral mechanisms, including:
    - Inflammatory pain (chemical irritation)
    - Infective
    - Neuropathic pain (nerve pain)
- All of these can cause "chronic/persistent" pain in the absence of any significant central sensitization. This is when the pathoanatomy becomes important. For Example:
    - Frozen shoulder causes pain that persists longer than three months. The pathology is inflammatory; the anatomy is the capsule of the glenohumeral joint. If you treat the inflammation with an anaesthetic and corticosteroid injection very often the pain is immediately abolished. This would not be the case if the patient was centrally sensitised.
    - The same patient treated as if pain were due to central sensitisation would unlikely be offered an injection and would likely remain in significant (inflammatory) pain. I see this often.

Dr Mark Laslett:

- Persistent pain may be due to persistent pathology in some cases, or may be due to significant psychosocial factors preventing a patient from progressing and returning to normal activities.
- To say that a person has chronic pain simply because symptoms persist more than 3 to 6 months is overly simplistic.

2.2 Do you think it is possible to make a pathoanatomic diagnosis in someone who has significant psychosocial factors?

Dr Angela Cadogan:

- Yes it is possible. However it may make it more difficult in some patients.
- A pathoanatomic diagnosis may also cause distress in some patients (e.g "rotator cuff tear"), and you have to be careful how you word the diagnosis when/if made.
- Significant psychosocial issues may present a barrier to treatment progress and need to be addressed in early in treatment: for example
    - It is not uncommon for me to spend one entire treatment session with patients, simply discussing the value of non-surgical treatment for small, atraumatic rotator cuff tears and reassuring them that pain is not harmful in order to calibrate their expectations around treatment.

Dr Mark Laslett:

- Must be done on an individual basis.
- After thorough evaluation, you make a decision whether the central sensitisation features are significant or if you are going to pursue a pathoanatomic diagnosis and possibly additional imaging investigations.