

Should We Provide a Clinical Diagnosis for People with Shoulder Pain? Absolutely, Maybe, Never! The Ongoing Clinical Debate Between Leavers and Retainers

When trauma results in a fracture of one of the shoulder bones, or a dislocation of one of the shoulder joints, providing a diagnosis is acceptable practice. Similarly, providing a diagnosis for the person seeking an explanation for their shoulder symptoms when an osteosarcoma is discovered in the humeral head is also viewed as acceptable. In these situations, the diagnosis is sensitively communicated, explained and, following shared decision-making, a management plan started, and modified as required.

However, the awkward reality is that most people seek care with a history of idiopathic and non-traumatic shoulder pain, and here lies one of the most hotly contested debates pertaining to clinical diagnosis in current clinical practice. On one side there are clinicians who wish to jettison all diagnostic labels (*leavers*), and on the other side are those who will fight to the end to retain them (*retainers*).

Those whose allegiance is with the *leavers* argue passionately that if we are prepared to call a twisted ankle a sprained ankle or an acute onset of back pain a sprained back then why can't we call non-traumatic shoulder pain a sprained shoulder (or an equivalent). By doing so, the possible hypervigilance, anxiety and fear that may consume a patient if provided with a pathoanatomical diagnosis is avoided. Opposing this view are the *retainers*, who argue equally passionately that the diagnostic terms are understood by patients, clinicians and in research. The *leavers* contend that pathoanatomical labels are unachievable, and concomitantly may cause harm. The *retainers* demand proof from the *leavers* for the definitive evidence of harm across the spectrum of shoulder conditions and caution against 'throwing the baby out with the bathwater'. The *retainers* argue that individuals seeking care for shoulder pain and weakness from the communities they serve would feel underwhelmed following a thorough interview, rigorously drawn body chart and clinical tests, with or without imaging, if they were then informed "you have a weak and painful shoulder or non-traumatic shoulder sprain".

Some clinicians whose natural habitat isn't at either extreme of the debate are metaphorically incapacitated. Does a 15-year-old girl who experiences frequent non-traumatic dominant side shoulder dislocations suffer from a recurring shoulder sprain, or possibly non-traumatic shoulder instability? How would either label play out for the patient, the patient's parents or carers, for other clinicians and for researchers?

A clinical diagnosis that has caused considerable angst to both sides of the debate is a relative newcomer – rotator cuff related shoulder pain (RCRSP). This term was introduced by Lewis (2016) with the aim of finding the middle ground between the *leavers* and the *retainers*. Lewis had previously argued that terms used in current practice, such as subacromial impingement syndrome, may have never existed (Lewis, 2011, 2015, 2018, 2022; Lewis et al., 2022) and being diagnosed

with impingement, or related conditions, may lead to patient fear (Cuff & Littlewood, 2018; Malliaras et al., 2021). Lewis has also challenged the certainty that definitive pathoanatomical diagnoses to explain symptoms based on imaging findings of a glenoid labral tear, rotator cuff tendon tear, or enlarged subacromial bursa could be provided with confidence (Lewis, 2022; Lewis et al., 2022). Especially when elective surgery to 'fix' these structural lesions appear to perform no better than placebo or when surgery and relative rest, followed by rehabilitation, is compared to rehabilitation in isolation (Lewis, 2022).

Some *leavers* have argued that the term RCRSP is heresy and have become apoplectic that a modern clinical diagnosis that refers to a structure has entered the lexicon. Maybe what they don't appreciate is that it isn't a pathoanatomical label. Other *leavers* have argued that the term RCRSP is as nonsensical as 'multifidus related back pain' and suggest that subacromial (another anatomical location) pain syndrome trumps RCRSP. Again, we argue for the middle ground. When the word subacromial is typed into Google™ references to impingement are populated and, although some websites attempt to separate the terms, others are using the terms synonymously. If there were agreed clinical criteria (which there aren't) to hypothesise that back pain was related to the multifidus then this might become an acceptable clinical term.

People seeking care want to understand why they have shoulder pain. This inevitably leads to the expectation of a clear and coherent diagnosis to help causally explain why their pain may have emerged and what management options are available (Maxwell et al., 2021). Qualitative research evidence emphasises the personal importance of receiving a diagnosis for various non-traumatic musculoskeletal pain presentations (Barber et al., 2022; Maxwell et al., 2021; Plinsinga et al., 2021), and if we are to be truly person-centred in our approach to health care, this is evidence we should take seriously. British writer and sufferer of persistent pain Hilary Mantel (2013) flawlessly articulates this sentiment: "the worst pain is unexplained pain" (p. 9).

So, again, we argue for the middle ground. Let us join the *leavers* and jettison all uncertain pathoanatomical labels to explain symptoms, as they cannot currently be diagnosed with certainty. Let us incorporate the *retainers'* view that providing a diagnosis may support an individual's understanding of their condition, facilitate communication with the patient and with other health professionals, as well as informing the inclusion criteria for clinical research. However, let's move forwards and embrace nomenclature that are both 'safe' and understandable.

Clinicians may hypothesise that a 50-year-old woman with no co-morbidities who presents with idiopathic and severe, left, non-dominant-side shoulder pain, with nothing substantial identified on radiograph, an equal restriction of active and passive shoulder external rotation that is more than 50%

restricted when compared to the contralateral side may have a frozen shoulder. The clinician may consider saying, “Based on our discussion and the assessment it is *likely* that you have a frozen shoulder, this is what it means and these are the possible management options” (including wait and watch, and their possible harms and anticipated benefits).

Clinicians may equally hypothesise that RCRSP is present if evidence of increased load (physical and/or lifestyle) is identified at the interview stage. That during clinical assessment, referred pain as best as possible is excluded, as is shoulder instability and shoulder stiffness. That bilateral muscle performance tests – isometric, repetitions to pain, repetitions to fatigue – reveal discrepancies, most commonly (but not exclusively) in the directions of shoulder elevation and external rotation. The clinician could then inform the patient, “Based on our discussion and the findings of the clinical assessment it is *likely* that you have RCRSP. The rotator cuff are the muscles and tendons and surrounding structures that contribute to shoulder movement.” This could facilitate a discussion about the different management options for muscles, tendons and related structures, within a shared decision-making model of care.

So, for those of us whose natural habitat is the middle ground, we argue that an appropriate and safe clinical diagnosis, such as RCRSP, devoid of inaccurate pathoanatomical, or indeterminate labels, is absolutely desirable for the reasons we have outlined.

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