



Musculoskeletal

Patient expectations and the clinician's test interpretation

How do the patient's expectations and beliefs influence pain perception during a clinical diagnostic test?

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Pain perception differs between patients who believe they have "muscle pain" and patients who believe they suffer from "nerve pain". Across five positions of the ULNT1, pain intensity and size of the painful area increased in with increased stretching positions in patients who believe they have "nerve pain". Patients who think they suffer from "muscle pain" do not experience changes as the stretch progresses.

Patients' expectations are known to influence pain perception and treatment outcomes. These expectations are associated with different brain activity patterns in areas relevant for pain processing; therefore, the anticipation of pain relief or increase are related with actual pain reduction or increase.

Fifteen healthy subjects volunteered for the study. Pain was experimentally induced in the thenar muscles through a saline injection and patients were randomised to "muscle pain" or "nerve pain" groups.



Both groups received information about upper limb anatomy and the ULNT1 test (they were told that each position had a different degree of mechanical load applied to the nerve, and that the greater the load, the greater the pain). The "muscle pain" group was told that saline injections are a common experimental method to induce muscle pain, while the "nerve pain" group was told that saline injections cause pain by stimulating or irritating nerve receptors.

There was an association between patients' expectations (as determined by their group allocation) and the pain responses to the ULNT1 maneuver. While the "muscle pain" group showed no changes between ULNT1 positions, the "nerve pain" group had an increase in pain intensity and painful area. These findings show that patient expectations and beliefs, as well as clinician instructions, have a crucial role in interpreting clinical test results.

Expert opinion

This is a simple but elegant study to explore the effects of patients' expectations and beliefs. It shows how much they can influence the response to a simple test – and consequently the decisions we make in response to those test results.

In an indirect way, it is also highlighting the importance of how we explain what we do to our patients. Significant decreases (or increases) in pain levels can be achieved simply by addressing beliefs and expectations; an intervention everyone should have on their clinical arsenal.

Indeed, this study tells us that changing expectations is not only inexpensive (or free, actually) but can have an immediate effect, which are two benefits most interventions cannot boast.

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