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# IMPLICIT BODY PERCEPTION AT THE PELVIC GIRDLE WITH THE TWO-POINT ESTIMATION TASK: A RELIABILITY STUDY

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**Main Category:** B (basic research)

**Main Topic:** Somatosensory system

**Background and aims:** Implicit body perception disturbance has been evidenced in low back pain (LBP) using the two-point estimation (2PE) measure. Previous research has only investigated unilateral LBP, not included a pain-free control group, or examined the measure at the pelvic girdle. Aims 1) design a testing protocol suitable for assessing pain crossing the midline (central) 2) investigate regional 2PE reliability 3) compare left and right sides and lumbar and pelvic regions.

**Methods:** A central 2PE measure was designed and protocolised. Non-pregnant, pain-free adult women > 18 years old were recruited from a university setting. Participants were assessed with repeated 2PE measures (estimating distance between two points (120mm apart) on a digital calliper). 2PE data was collected via two online and two in-person sessions. In-person intra and inter-rater reliability of the 2PE was assessed using intra-class correlation coefficients (ICC). Differences between lateral (Left versus right) and central (pelvic girdle versus lumbar spine) were assessed using paired t-tests.

**Results:** 22 women (mean age 40.5 +/-13.3) participated. 2PE demonstrated good intra-rater reliability with two repeated measures (lateral ICC=0.71 95%CI [0.49-0.87] / central ICC=0.80 95%CI [0.59-0.91]). Inter-rater reliability ranged from poor to good (lateral ICC=0.48 95%CI 0.58-0.75 / central ICC=0.65 95%CI [0.33-0.84]). There were no differences between the left and right lateral measures ( $p=.198$ ) but the 2PE was greater for the lumbar compared to the pelvic region ( $p<0.005$ ).

**Conclusions:** The 2PE task demonstrates good intra-rater reliability of a central and lateral measure. Differences in 2PE between regions may reflect somatosensory representation differences and may have implications for pain perception.

**Do you have any conflict of interest to declare (industry support) for the past 3 years related to this work?** No

**Has this study been approved by an ethics committee?:** Yes

**In case of patient case presentations: Do you have approval from the patient/patients?** No

**Explain why:** Not applicable

**I am interested in participating in a poster walk:** Yes

**My abstract has an industry perspective:** No

**I wish to be eligible for a poster prize:** Yes

**If selected, I would like to give an oral presentation in addition to the poster presentation:** Yes