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

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Background

- Body perception disturbance is evidenced in low back pain, using a two-point estimation (2-PE) task.
- 2-PE involves estimating the distance between two points on a digital calliper.
- Previous research has only investigated 2-PE in a population with unilateral low back pain, not included a pain-free control group or examined the measure at the pelvic girdle.

Aims

- Design a 2-PE testing protocol suitable for assessing pain crossing the midline.
- Investigate regional 2-PE reliability.
- Compare left and right side and lumbar and pelvic regions.

Methods

- **Population**: women >18 years old,
- **Exclusion criteria**: currently pregnant, surgical history at the low back or pelvis, self-reported pain in low back, hip or pelvic region currently or within the last month.
- Central measure designed and protocolised at the lower back and pelvic girdle.
- **Lateral measure**: 8 repeated measures (4 on the left and 4 on the right at the pelvic girdle).
- **Central measure**: 8 repeated measures (4 at the pelvic girdle, 4 at the lumbar spine).

Results

- 22 women (mean age 40.5 +/- 13.3) participated.
- Mean of two repeated measures stabilised the reliability.

**Intra Rater Reliability**

- **Good** intra-rater reliability
  - Lateral ICC = 0.71 95%CI [0.49-0.87]
  - Central ICC = 0.80 95%CI [0.59-0.91]

**Inter Rater Reliability**

- **Poor to good** inter rater reliability
  - Lateral ICC = 0.48 95%CI [0.58-0.75]
  - Central ICC = 0.65 95%CI [0.33-0.84]

**Regional differences**

- No difference between the left and right lateral measures (p=.198).
- 2-PE scores were greater for the lumbar compared to the pelvic region (p<0.005).

Conclusion

Differences in 2-PE between regions may reflect somatosensory representation differences and may have implications for pain perception.