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