JoVE Cover letter for:

Inter-tester reliability of a cost-efficient method to measure sensation and pain in humans

Why this work should be published in JoVE's unique multimedia format

The measurement of pain and neural sensitivity (e.g. touch sensation) is an essential part of neurological and pain related research and is essential in diagnosing and treating pain conditions in human patients. As the number of diagnoses increases around the world, and our understanding of chronic pain conditions increases, having a consistent, effective, and cost-efficient method of quantifying pain in humans becomes increasingly important. The newest technologies allow for efficient and reliable measures of pain and sensation. However, most of this equipment is highly specialized and often expensive; thus few research laboratories and medical clinics will have access to these new technological measures. In the current manuscript, we report a battery of tests that allows a comprehensive assessment of pain and neural sensation of humans. Our protocol provides a detailed description of conducting these measurements with an emphasis on consistency. As many research laboratories and certainly most medical clinics around the world will experience employee turnover and/or have the need for multiple technicians to deliver these measures, we conducted a reliability study for these measures and we report inter-examiner reliability.

Kostek: Assisted with study design, recruited subjects, assisted with data analysis and interpretation, and wrote manuscript.

Polaski: Recruited, scheduled, and tested study participants; assisted with data analysis and interpretation, assisted with manuscript preparation.

Kolber: Assisted with study design and equipment design, assisted with data analysis and interpretation, and assisted with manuscript preparation.

Ramsey: Recruited, scheduled, and tested study participants; assisted with data analysis and interpretation.

Kranjec: Assisted with study design and funding, assisted with data analysis and interpretation, and assisted with manuscript preparation.

Szucs: Lead and coordinated the study, lead study design, wrote IRB, obtained funding, recruited subjects, assisted with data analysis and interpretation, and assisted with manuscript preparation.

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