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Response to XX

Dear Editor,

We thank **XX** for their thoughtful comments regarding our study 'Movement-based subgrouping in low back pain: synergy and divergence in approaches' [1]. We agree, as acknowledged in the paper, that the generalisability of the findings may be limited by the use of a single assessor. Although we agree that this may influence the accuracy of classification of some participants, the risk of misclassification is believed to be small as the prevalence rates of the most common subgroups for each scheme were similar to other reports, and where discrepancies did exist, a plausible rationale was offered.

Although it is acknowledged that 'perfect' application of each classification may require a different approach to conduct the assessment, experts in each of the classification schemes were consulted, via a modified Delphi-survey format, when developing the examination content and sequence, to ensure that all key clinical tests and measures were included to classify patients adequately [2]. Although the edited version of the videoed examination was approximately 90 minutes in length, the total classification process lasted for approximately 3 hours. The tests were conducted in a sequential manner (tests in standing, then sitting, then supine, etc.) for several reasons. First, it was considered that this would most closely resemble clinical practice. Second, it was believed that this would minimise potential bias towards one scheme in the decision-making process (i.e. rather than performing all tests for each scheme as a block, an examination sequence was chosen that would distribute the tests equally for each of the five schemes). Third, it was considered that sequential testing would provide the most time-efficient platform to reduce the burden on the patient and examiner.

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As highlighted by Sheeran *et al.* [3], some of the barriers to adoption of classification schemes are the many hours of advanced training required (but not readily available) by certain schemes, and the perceived threat to therapeutic diversity by use of a single classification system. A survey of US-based physiotherapists illustrated that use of classification schemes is diverse, and that diagnosis often occurs across multiple levels or systems [4]. Our study may be considered to represent a typical reflection of the pragmatic use of classification schemes as applied in current clinical practice. Hence, this study attempted to fill these gaps in clinical research related to classification schemes by addressing the view that a single classification approach is unlikely to fit all subtypes of low back pain, and mirrors common clinical practice in which clinicians often shift between different classification schemes. We look forward to future studies in this important field of clinical research.

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