

Commentary

Zeevi Dvir, PhD, Editor in Chief, *Isokinetics and Exercise Science*

The excellent paper by Ayalon et al. joins a growing line of studies that have looked into using isokinetic dynamometry for identifying submaximal muscular performance (feigned weakness). Invariably the protocols applied in these studies have used maximal performance as the baseline to which its submaximal counterpart was compared. Furthermore, measurement of maximal performance preceded submaximal performance. Inasmuch as the 'maximal performance' component is concerned, the measurements in all studies were based on previously reported protocols which evolved to become standard. The same protocols were used for measuring the feigned weakness, the only variation being the instructions administered. It is this element that is the focus of this commentary.

Sincerity of effort studies relate to two distinct groups of subjects: healthy and patients and it is the first group that make up the overwhelming majority of the studies. In assessing the ability to submaximize the effort in normal subjects, they were asked to:

1. Fake effort without further instructions [1].
2. Produce a submaximal level of effort they thought was best reproducible [2,3].
3. Produce a submaximal level of effort they thought was a given percentage of their maximal effort [4, 5].
4. Provide a self-selected submaximal effort in an attempt to feign weakness of the test leg [6,7].
5. Simulate injury [8,9].
6. Simulate pain [10,11].

Patients suffering from low back dysfunction were asked to pretend their pain was worse [10].

Although it is expected that instructions such as 1–4 may lead to a different submaximal strength compared to that resulting from 5 and 6, no systematic attempt relating to this issue has been reported. Furthermore, instructions 5 and 6 lead to some basic questions as sincerity of effort testing should not be conducted in the presence of pain unless the express objective of the

test is to elicit pain for the sake of a more focused diagnosis or assessment. On the other hand, the full significance of simulated pain in the context of strength testing requires a thorough analysis, quite outside the study of effort. Perhaps the introduction of pain scales and the formulation of simulated pain level in this context will enable in future studies a more focused control of muscular performance.

References

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