

POSTER PRESENTATION

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# Completeness of outcome description in studies for low back pain rehabilitation interventions: a survey of trials included in Cochrane reviews

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## Background

Selection of appropriate outcome measures is crucial in clinical trials in order to minimize bias and allow for precise comparisons of effects between interventions [1-3].

## Objective

We aimed to assess the frequency and completeness of outcome measures in randomized controlled trials (RCTs) included in Cochrane systematic reviews (SRs), focusing on evaluations of the efficacy and safety of rehabilitation interventions for mechanical LBP.

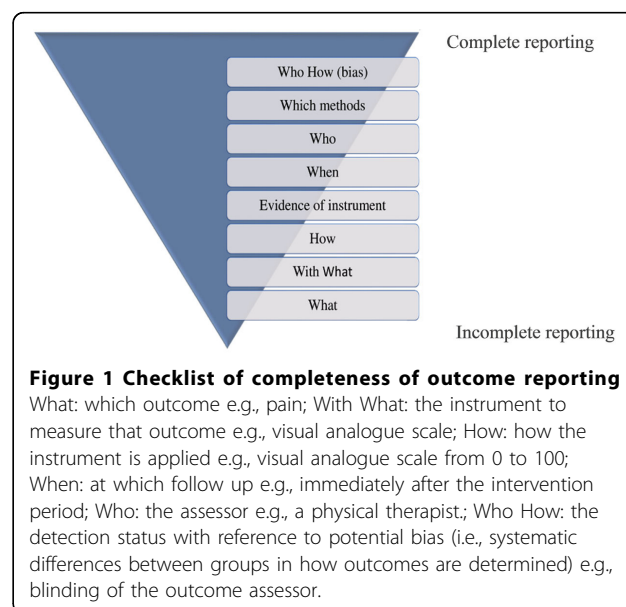
## Materials and methods

We performed a cross-sectional study of all RCTs included in all Cochrane SRs (full-text) published on The Cochrane Database of Systematic Reviews in February 2013. Two authors independently evaluated the type and frequency of each outcome measure reported in the full-text of RCTs, the methods used to measure outcomes, and the proportion of outcomes fully replicable based on the reported information (Figure 1).

## Results

Our literature search identified 11 Cochrane SRs, including 185 RCTs. Across all RCTs, thirty-six different outcomes were investigated. The outcomes most commonly reported were pain (165/185; 89,2%, 95% Confidence Interval (CI) 84.7% – 93.7 %), disability (118/185; 63,8%, 95% CI 56.9% – 70.7 %), range of motion (72/185; 38.9%

95% CI 31.9% – 45.9%), and quality of life (45/185; 24,3%, 95% CI 18.1% – 30.5%) measured respectively by 70, 43, 41, 19 different measurement instruments (Figure 2). The procedure of blinding assessment was reported in 49.7% of the RCTs for pain (n= 82 RCTs) and 45% of RCTs for disability (n=53 RCTs). Pain, disability, range of motion, and quality of life outcomes were reported as fully replicable in 10.3% (n= 17 RCTs), 10.1% (n= 12 RCTs), 5.5% (n= 4 RCTs), and 6.6% (n= 3 RCTs) of the RCTs, respectively (Figure 3).



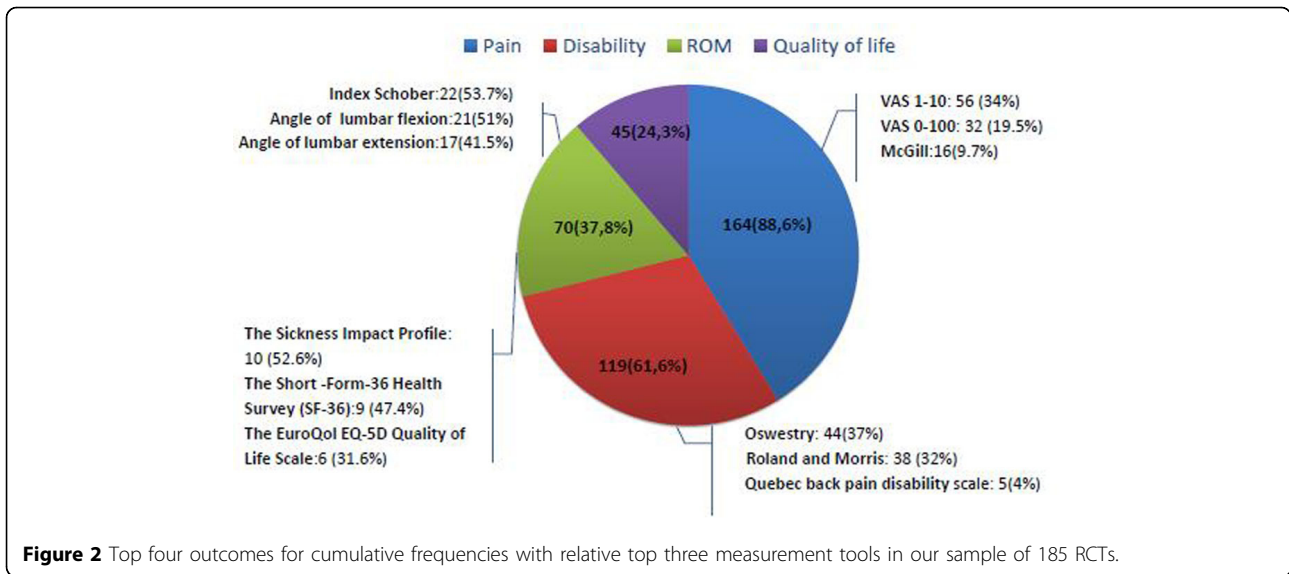
**Figure 1 Checklist of completeness of outcome reporting**

What: which outcome e.g., pain; With What: the instrument to measure that outcome e.g., visual analogue scale; How: how the instrument is applied e.g., visual analogue scale from 0 to 100; When: at which follow up e.g., immediately after the intervention period; Who: the assessor e.g., a physical therapist; Who How: the detection status with reference to potential bias (i.e., systematic differences between groups in how outcomes are determined) e.g., blinding of the outcome assessor.

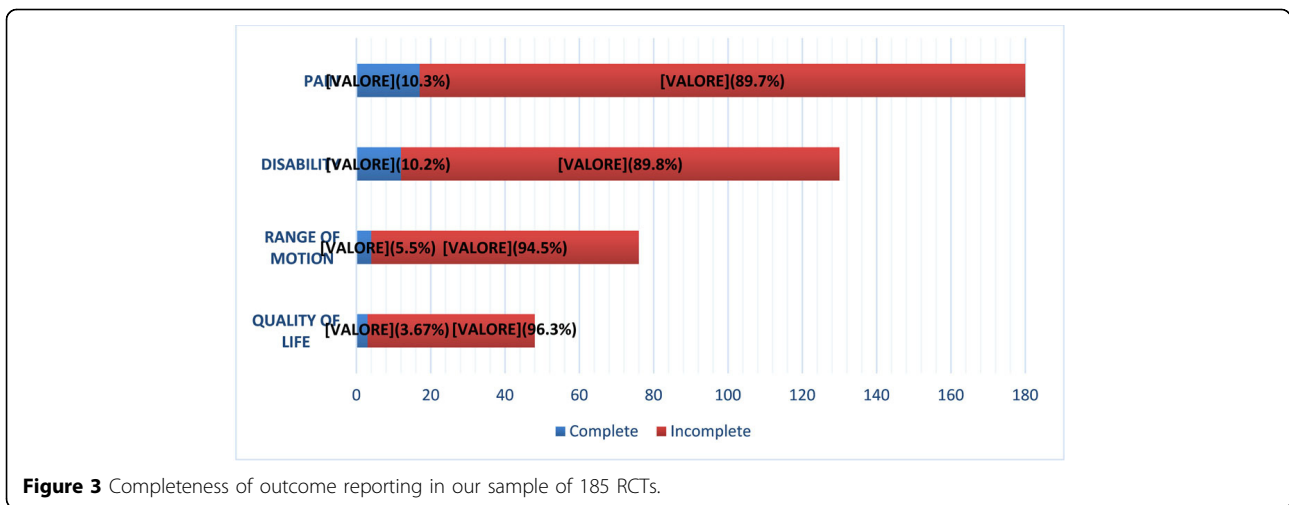
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**Figure 2** Top four outcomes for cumulative frequencies with relative top three measurement tools in our sample of 185 RCTs.



**Figure 3** Completeness of outcome reporting in our sample of 185 RCTs.

## Conclusions

A large number of outcome measures and a myriad of measurement instruments were used across all RCTs. The reporting was largely incomplete, suggesting better opportunities for the standardization of approaches and reporting.

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