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## THERAPEUTIC VALIDITY OF EXERCISE THERAPY IN RCTS

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### Objectives

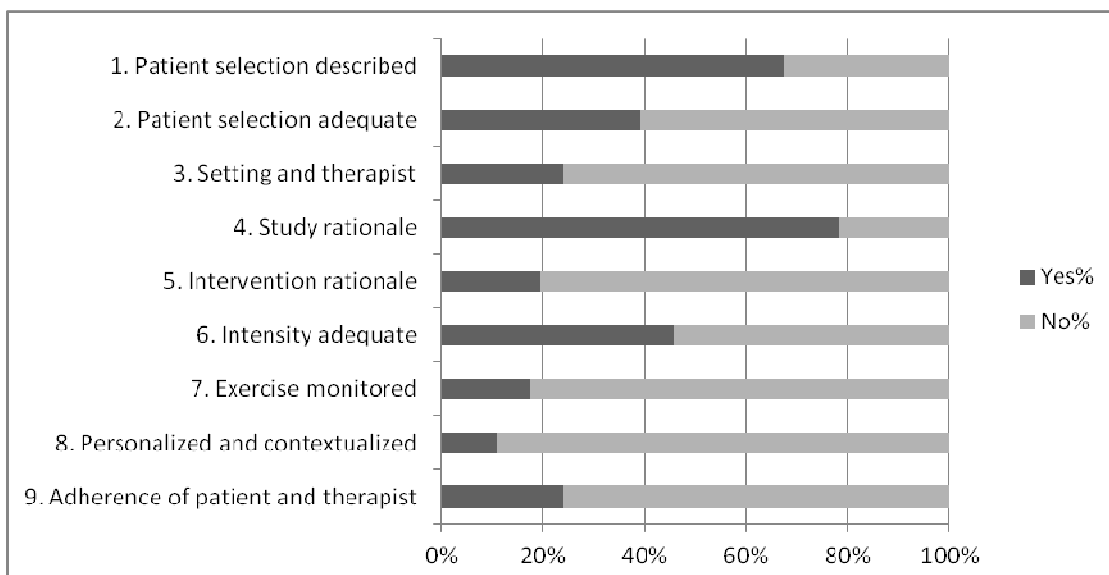
Reviews on RCTs studying the merits of exercise therapy use best-evidence synthesis to collate the best available evidence. Remarkably, only the risk of bias (RoB) of included studies is assessed, while the therapeutic validity of the interventions is neglected. The purpose of this study was to 1) develop a rating scale to assess the validity of exercise programs, and 2) study the validity of exercise therapy in people with chronic conditions.

### Methods

In a Delphi study, consensus was reached among five exercise experts on which aspects define therapeutic validity in exercise therapy; resulting in the CONTENT scale (Figure 1). Consequently, we performed 5 systematic literature searches (5 electronic databases) to identify RCTs that studied the merits of exercise therapy in people with endstage osteoarthritis, THR, RA, COPD, and MI. Two reviewers extracted data and assessed RoB (low if  $\geq 60\%$ ) and therapeutic validity (high if  $\geq 6$ ).

### Results

We identified 57 eligible RCTs. Inter-rater agreement ( $k$ ) was  $>0.70$  for both the RoB and therapeutic validity scores. 19 studies (33%) had low RoB, 11 studies (19%) had high therapeutic validity, and 7 studies (12%) had both low RoB and high therapeutic validity. The figure demonstrates that specially items 3, 5, 7, 8 and 9 scored poorly ( $<25\%$ ).



### Conclusions

Only 12% of the RCTs had good RoB and therapeutic validity. One of the major concerns was the lack of a rationale for the exercise interventions, resulting in unclear patient selection (i.e. excluding patients with comorbidities/functional disability) and unclear exercise dosing (i.e. mostly low intensity). Future reviews on exercise therapy should address therapeutic validity in the best-evidence synthesis.