

Initial scale development for Osteoarthritis Conceptualisations (OACS) resulted in an item bank endorsed by OA consumers and clinical/research experts

Title: Item development and pre-testing of the Osteoarthritis Conceptualisation Scale (**OACS**) to assess knowledge and beliefs in people with knee pain

KEY POINTS

- Using guideline informed mixed methods, we developed an item bank for further scale development
- It was feasible to combine inductive *and* deductive methods in this first phase of development

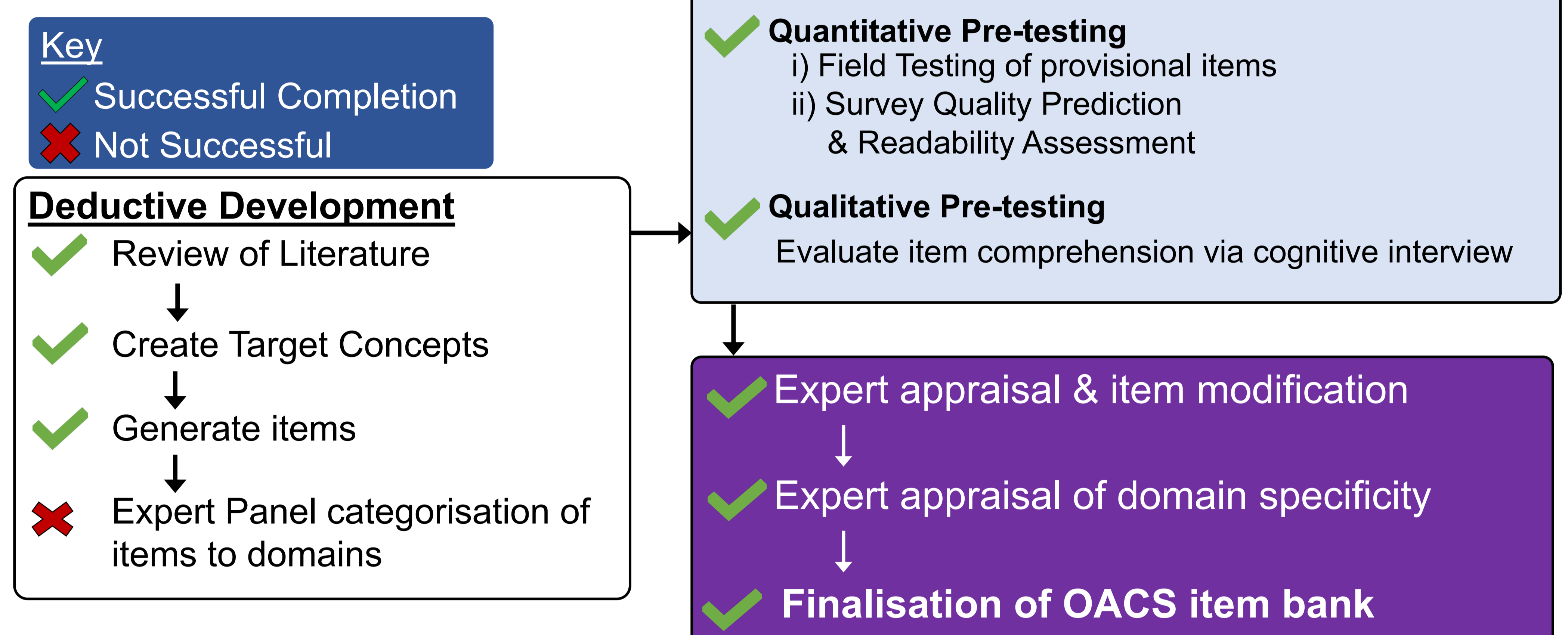
Background

- Many people with osteoarthritis believe that physical activity is dangerous for their joint, limiting engagement with activity
- Conceptual change has been proposed as an important mechanism for cognitive interventions targeting unhelpful beliefs
- There are currently no *direct* measures of conceptualisation about osteoarthritis

Objective

To undertake the initial phase of scale development for a new measure to assess conceptualisation about knee osteoarthritis and physical activity

Fig. 1 Study Flow Chart and Outcomes



Results

- Field testing did not detect any overall floor or ceiling effects
- Both preliminary and final item banks were scored at an eighth grade reading level
- Survey quality prediction highlighted changes to instruction wording regarding grading and balance
- The expert panel reached consensus about the relevant domains for the final item bank, including activity and damage; changeability, definition of osteoarthritis; physical activity/exercise (for osteoarthritis); flare-ups; inflammation (and damage); influence of variables; learning; pain perception (and damage); reflection; surgery
- **The final item bank consists of 45 items, titled Osteoarthritis Conceptualisation Scale (OACS)**
- OACS uses a 5-point Likert-scale with responses “Strongly disagree” through “Strongly agree”

Discussion

This study combined expertise from research/clinical experts in osteoarthritis/pain and from people with lived experience to initiate creation of a new scale to assess osteoarthritis conceptualisation. Factor analysis and psychometric testing via Rasch analysis are underway.

Methods

- A panel of experts (n=7) created a *provisional* item bank of 33 items about osteoarthritis and physical activity

Qualitative Pre-testing

- Eighteen people (mean age 71.8 ±7.5 years) with painful knee osteoarthritis participated in cognitive interviews about their comprehension of item wording

Quantitative Pre-testing

- 100 people with knee osteoarthritis (mean age 66.9 ±9.0 years) completed the *provisional* item bank to assess response distribution
- Readability and survey quality prediction (SQP) were used to evaluate the how changes to test instructions and scoring impacted overall quality.

Appraisal

- Expert panel modified the item bank (item wording, adding new items) and instructions

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Find out how to participate in Phase 2



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