

Manuscript # 17052

COSMIN Study Design checklist for Patient-reported outcome measurement instruments

Please see attached PDF with questions and explanations of the 4-point rating scale for each question.

General recommendations for the design of a study on measurement properties

Question

1. Very good, page 2 and 4
2. Very good, page 3
3. Very good, page 3
4. Not Applicable. This is a translation of a validated existing PROM
5. Very good, page 5
6. Very good, page 3
7. Very good, page 3
8. Very good, page 4-5
9. Very good, page 5
10. Very good, page 8

Content validity

Question

1. Very good, page 4. This is a translation of a validated existing PROM
2. Not Applicable. This is a translation of a validated existing PROM
3. Not Applicable. This is a translation of a validated existing PROM
4. Not Applicable. This is a translation of a validated existing PROM
5. Not Applicable. This is a translation of a validated existing PROM
6. Not Applicable. This is a translation of a validated existing PROM
7. Not Applicable. This is a translation of a validated existing PROM
8. Very good, page 4-7
9. Very good, page 4

Structural validity

Question

1. Not Applicable
2. Not Applicable
3. Not Applicable
4. Not Applicable
5. Very good, page 4
6. Not Applicable, no missing items

Internal consistency

Question

1. Not Applicable
2. Very good, page 8
3. Not Applicable, no missing items
4. Very good, page 8

5. Not Applicable, no dichotomous scores
6. Not Applicable, no IRT-based scores

Cross-cultural validity\Measurement invariance

Question

1. Very good, page 3
2. Very good, Figure 1
3. Not Applicable. This is a translation of a validated existing PROM
4. Not Applicable. This is a translation of a validated existing PROM
5. Not Applicable. This is a translation of a validated existing PROM
6. Not Applicable. This is a translation of a validated existing PROM
7. Not Applicable. This is a translation of a validated existing PROM
8. Not Applicable. This is a translation of a validated existing PROM

Measurement error and reliability

Question

1. Very good, page 5
2. Very good, page 5
3. Very good, page 5
4. Very good, page 5
5. Very good, page 5
6. Adequate, page 4
7. Very good, Table 1-2
8. Not Appropriate
9. Not Applicable, no missing data

Statistical methods for reliability

Question

7. Very good, page 6
8. Not Applicable
9. Not Applicable
10. Not Applicable, no missing items

Criterion validity

Question

1. Not Applicable
2. Not Applicable
3. Not Applicable
4. Very good, Table 2
5. Not Applicable

Hypotheses testing for construct validity

Question

1. Adequate, page 6
2. Adequate, page 6
3. Adequate, page 6

4. Adequate, page 8
5. Adequate, page 5
6. Very good, page 6-7
7. Not Applicable, no missing items

Comparison between subgroups (discriminative or known-groups validity)

Question

1. Not Applicable, no comparison between groups
2. Not Applicable, no comparison between groups
3. Not Applicable, no comparison between groups
4. Not Applicable, no comparison between groups
5. Not Applicable, no comparison between groups

Responsiveness

Question

1. Not Applicable, the aim of the paper was not to study responsiveness
2. Not Applicable, the aim of the paper was not to study responsiveness
3. Not Applicable, the aim of the paper was not to study responsiveness
4. Not Applicable, the aim of the paper was not to study responsiveness
5. Not Applicable, the aim of the paper was not to study responsiveness
6. Not Applicable, the aim of the paper was not to study responsiveness
7. Not Applicable, the aim of the paper was not to study responsiveness
8. Not Applicable, the aim of the paper was not to study responsiveness
9. Not Applicable, the aim of the paper was not to study responsiveness

Construct approach (i.e. hypotheses testing; comparison with other outcome measurement instruments)

Question

1. Very good, page 7
2. Very good, page 6
3. Very good, page 5
4. Very good, page 5
5. Very good, page 5
6. Very good, page 5
7. Not Applicable, not looking for changes
8. Adequate, page 8
9. Very good, page 6-7
10. Very good, The missing item is clearly described. The person with missing KOOS-Child was not included.

Construct approach: (i.e. hypotheses testing: comparison between subgroups)

Question

1. Not Applicable, no comparison between groups
2. Not Applicable, no comparison between groups
3. Not Applicable, no comparison between groups
4. Not Applicable, no comparison between groups

5. Not Applicable, no comparison between groups
6. Not Applicable, no comparison between groups
7. Not Applicable, no comparison between groups
8. Not Applicable, no comparison between groups

Construct approach: (i.e. hypotheses testing: before and after intervention)

Question

1. Not Applicable, no comparison before and after intervention
2. Not Applicable, no comparison before and after intervention
3. Not Applicable, no comparison before and after intervention
4. Not Applicable, no comparison before and after intervention
5. Not Applicable, no comparison before and after intervention
6. Not Applicable, no comparison before and after intervention
7. Not Applicable, no comparison before and after intervention
8. Not Applicable, no comparison before and after intervention

Translation process

Question

1. Very good, page 3-4
2. Adequate, page 4
3. Very good, page 4
4. Very good, page 4
5. Very good, page 4
6. Very good, page 4
7. Very good, page 4
8. Very good, page 4
9. Adequate, the translation was not reviewed by the original developer of the PROM
10. Doubtful, no feedback report of the translation process was written
11. Inadequate, did not conduct cognitive interviews
12. Very good, page 4.