

Standardised Translation of the Bronchiectasis Health Questionnaire (BHQ) into Eleven Languages

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Bronchiectasis Health Questionnaire (BHQ)

- The Bronchiectasis Health Questionnaire (BHQ) is a validated 10-item bronchiectasis-specific health-related quality of life (HRQOL) questionnaire, developed in British English.
- Two recall periods: past week, last two weeks
- Items 1 to 6 share the same RC in 7 points from 1. All of the time to 7, None of the time
 - Item 1. In the [recall], I have been tired.
 - Item 2. In the [recall], I have been much slower at doing things than other people of my age.
 - Item 3. In the [recall], I have felt anxious.
 - Item 4. In the [recall], my chest has felt clear.
 - Item 5. In the [recall], I have been embarrassed because of my phlegm (sputum).
 - Item 6. In the [recall], I have felt short of breath.

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- Item 7 to item 9 have different RCs, all in 7 points.
 - Item 7. In the [recall], my sleep has been disrupted because of my bronchiectasis.
 - 1. *Every night to 7. Never*
 - Item 8. In the [recall], I have had coughing bouts.
 - 1. *Every day to 7. Never*
 - Item 9. In the [recall], my phlegm (sputum) contained blood.
 - 1. *Every time to 7. Never*

- Item 10 has also a different recall period
 - Item 10. In the last one year, I have taken courses of antibiotics for a chest infection.
 - 1. *More than five times to 7. None*

Bronchiectasis Health Questionnaire (BHQ)

- The BHQ was developed with Item Response Theory Rasch Analysis (manuscript under review), in 206 patients with non-cystic fibrosis bronchiectasis.
- The BHQ has a single score, range 0-100, where 100 represents the best HRQOL.
- The psychometric properties of the BHQ are excellent:
 - Internal consistency: Cronbach's alpha coefficient = 0,85
 - Repeatability: ICC = 0,89
 - Construct validity: correlation with SGRQ total score = -0,82 ($p < 0,001$)

Definitions

▪ Translation

- Act of bilingual communication
- Made possible because of parallelisms in thoughts and situations = transcoding operation
- Performing a translation = attempting to say ALMOST the same thing.
- Being faithful to a source text means performing a **WORLD FOR WORLD** translation rather than a **WORD for WORD** translation.

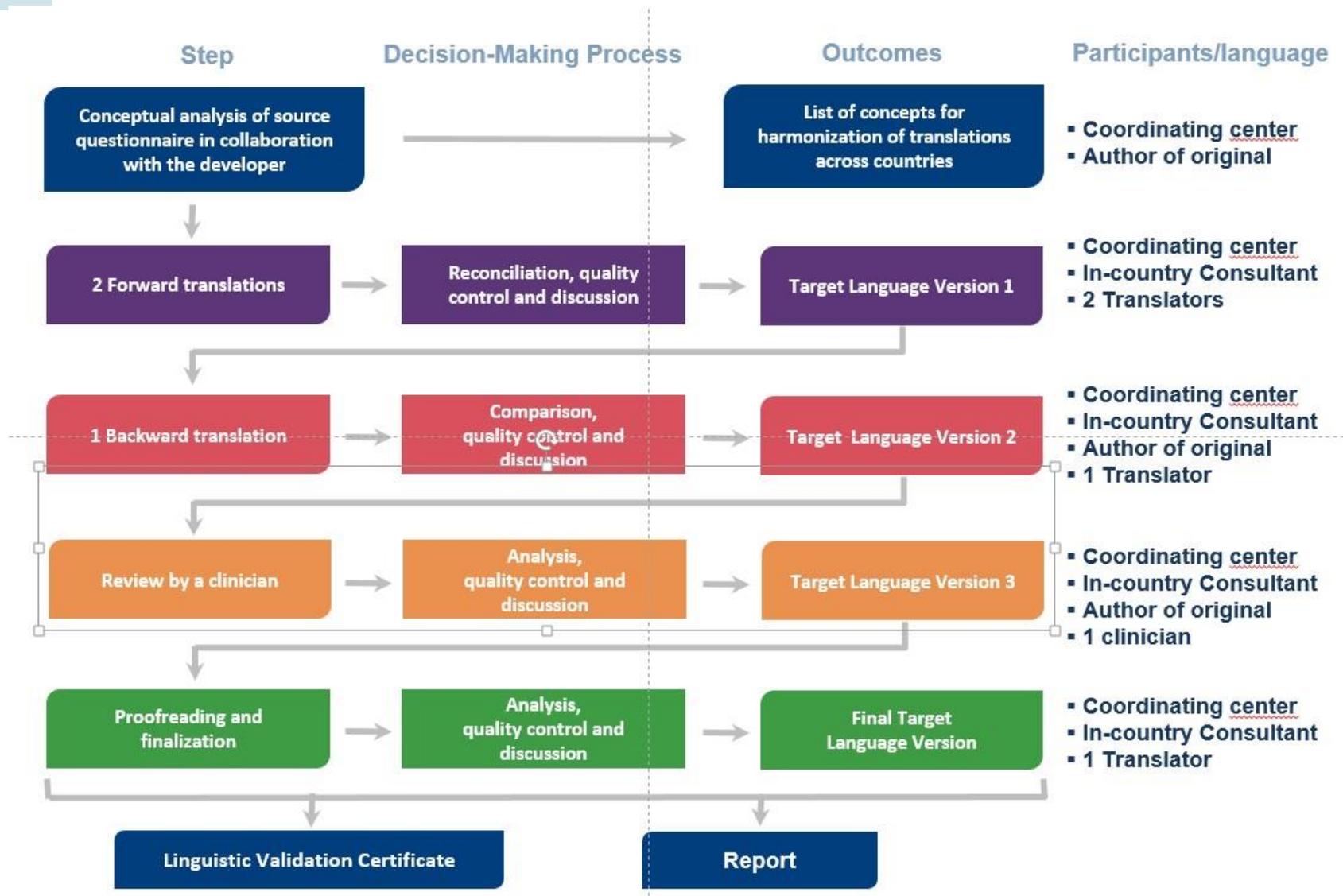
▪ Linguistic Validation

- Process used to translate questionnaires into another language
- Implies several steps, using translation techniques, and test on target populations (e.g., patients, caregivers, healthy subjects)
- More than a standard translation.

BHQ translated into eleven languages

Family	Branch	Sub-branches		Language
Indo-European	Germanic		West Germanic	Dutch (Belgium, The Netherlands), English (USA), German (Germany)
			Gallo-Romance	French (Belgium, France)
	Italic	Romance	Ibero-Romance	Spanish (Spain, USA)
			Italo-Romance	Italian (Italy)
Japonic				Japanese
Sino-Tibetan	Sinitic	Chinese		Mandarin

Linguistic Validation Methodology



Results

- The translation process did not reveal any cultural issues since most of the concepts assessed were cross-culturally relevant.
- The main difficulties were found in:
 - The response categories in 7 points
 - Items 2, 4, 5 and 10
- Response categories: the main issue consisted in finding conceptual equivalents to the response choices designed as Likert-type scales in 7 points (e.g., “All of the time” to “None of the time”).
 - In all countries, translators ensured that the continuity of time was kept between all versions using either adverbs or synonyms.
 - For instance, “All of the time” was translated by equivalents of “Always” in six languages: “Immer” in German, “Siempre” in Spanish (USA), “Sempre” in Italian, “Altijd” in Dutch (Belgium and The Netherlands), and “いつも” in Japanese.

Results

- Items 2, 4, 5 and 10 were the items raising most discussion across languages for semantic, idiomatic or syntactic reasons.
- Item 2: *“I have been much slower at doing things”* was translated for **idiomatic reasons** by:
 - *“I did things much slower”* in Dutch, Chinese or Spanish (Spain), or
 - *“I needed more time to do things”* in French.
 - Solutions were all compatible with the RCs: 1. All of the time to 7. Never
- Item 5: *“I have been embarrassed because of my phlegm (sputum).”*
 - “Embarrassed” was replaced by “uncomfortable” in French,
 - “I have been” by “I have felt” in seven languages.

Results

- In items 4 and 10, the word “chest” was used either as a noun (i.e., “my chest” – item 4) or as an adjective (i.e., “chest infection” – item 10),
- “Chest” was translated by several equivalents depending on the target language (e.g., by “lung” or “respiratory” or “pulmonary”):
 - Dutch: “lung infection” (longinfectie)
 - French: “my lungs” (mes poumons); “pulmonary infection” (infection pulmonaire)
 - Spanish: “respiratory infections” (infecciones respiratorias)
 - Chinese: “respiratory infections” (呼吸道感染)
- The conceptual analysis and the clinician review proved useful to clarify the concept of “clear chest” in item 4, i.e., meaning “chest clear of sputum or congestion.”
 - Spanish: pecho despejado (clear chest)
 - Italian: torace libero (free chest)
 - Chinese: 胸部清爽 (fresh chest)

- No major difficulties in translating the BHQ into 11 languages
- The rigorous methodology used, involving the participation of the developer, and 44 translators, was essential in producing translations of the BHQ conceptually equivalent to the British English original.

For More Information...

- About the original version and the translations of the BHQ, please contact:



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Thank You!