

# Toolkit for Rapid and Rigorous TransCultural Adaptation (RR-TCA version V1<sup>©</sup>) of program evaluation and quality improvement questionnaires



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**FREE TOOLKIT**

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## Toolkit rationale

This toolkit addresses needs that were identified by clinicians, decision-policy-makers, patients partners and patient-oriented researchers across Quebec in December 2015. These needs were voiced during Quebec SPOR Support Unit 4 consultation days in all Réseaux universitaires intégrés de santé (RUIS). For example, the knowledge translation branch of the CHILD-BRIGHT SPOR network approached the Method Development platform of the Quebec SPOR SUPPORT Unit to request support with the **TransCultural Adaptation (TCA)** of a survey questionnaire. They wanted to perform TCA from English to French of a questionnaire used to measure the level and extent of stakeholder engagement in community-based participatory research (CBPR) partnerships. There are well-established guidelines for performing TCA with well-defined steps [1-4]. However, following these conceptual steps would have been complex and time-consuming, and not allowed to meet CHILD-BRIGHT's timeline. Thus, we developed practical recommendations to perform a rapid and rigorous TCA of the existing CBPR questionnaire from English to French. This SPOR Unit-Network collaboration led to develop the present toolkit.

## Toolkit purpose

Provide a set of practical recommendations for performing **Rapid and Rigorous TransCultural Adaptation (RR-TCA)** of questionnaires used in program evaluation and quality improvement (e.g., questionnaires developed and validated in English, but not available in French).

## Description of the toolkit development

To develop this toolkit, we prepared a summary of the existing guidelines for TCA [1-4], defined the tasks required for each step, as well as how these tasks could be outsourced, their timeline and total cost to adapt the CHILD-BRIGHT questionnaire (28 items). Reem El Sherif oversaw the process, co-ordinated the outsourcing of work between different service providers, and organized and facilitated the group meetings between CHILD-BRIGHT's and Quebec SPOR SUPPORT Unit's researchers. This collaboration led to produce this toolkit.

## Toolkit content: a list of tasks, an example and resources for performing RR-TCA

The 12 tasks are presented on page 2, and an example and resources (such as interview guides and meeting agenda) are presented on pages 3 and 4. The toolkit can be used by anyone who is using (or have developed) a validated questionnaire that they wish to translate to another language, specifically:

- Stakeholders involved in patient-oriented research such as clinicians (e.g., nurses, pharmacists, physicians, social workers and allied primary care professionals), managers, patient partners, and researchers;
- Evaluators of interventions and programs in health and social services, and professionals in charge of quality improvement in health and social services.

**NOTE:** The RR-TCA is aimed to provide an adapted transcultural version of a validated questionnaire assuming that this adaptation maintains the measurement properties of the questionnaire (such as validity and reliability). However, the research team might decide to conduct further validation and reliability testing of the adapted version (depending on the type of questionnaire and context of use) [4].



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<b>Conceptual steps (Wild et al. 2005) [1]</b>	<b>The 12 tasks necessary to perform a Rapid and Rigorous TransCultural Adaptation (RR-TCA)</b>	<b>BUDGET*</b>	<b>TIME*</b>
<i>Preparation: initial work carried out before the translation work begins.</i>	T01.The team designates (or hires**) an RR-TCA-coordinator. T02.The coordinator prepares a table with all the items to be translated including all elements of the questionnaire: instructions, questions and response options (insert one item per line in column A of the table).	Coordinator salary/contract	5 hours
<i>Forward translation from the original (source) language into another (target) language.</i>	T03.The coordinator hires 2 bilingual translators** to independently carry out the forward translation.	\$0.15 to \$0.30 per word (x2)	35 to 70 hours
<i>Reconciliation: comparing and merging more than one forward translation into a single reconciled translation.</i>	T04.The coordinator compares both translations, highlights divergences, and merges them into one translated version with the help of a bilingual member of the team whose mother tongue is the target language; compare and merge outside the table as the merged version will be inserted in column E of the table (see T06).	Coordinator	5 hours
<i>Back translation: translation of the forward-translated version back into the original language.</i>	T05.The coordinator hires 2 bilingual translators to independently carry out the back translation. Alternatively, s/he can ask a bilingual member of the research team whose mother tongue is the original language to carry out 1 back-translation, and hire a professional translator to do the 2nd back-translation.	\$0.15 to \$0.30 per word (x2)	35 to 70 hours
<i>Back translation review: comparison of the back-translated versions of the instrument with the original to highlight and investigate discrepancies between the original version and the reconciled translation.</i>	T06. For each item, the coordinator compares the original version (column A) with the backtranslated versions (columns B and C), and highlights the discrepancies between these versions (column D); then, s/he adds the translated version in target language and reconciled (column E); and with the help of at least one bilingual member of the team whose mother tongue is the target language, s/he proposes a target language version that would resolve the differences (column F).	Coordinator	5 hours
<i>Harmonization: comparison of multiple language versions with each other to achieve a consistent approach to address translation issues.</i>	T07.Harmonization meeting: The coordinator forms a bilingual multidisciplinary committee including team members and questionnaire users (ideally, at least one person on the committee has linguistic or information-librarianship expertise). For each item, the different versions (columns) are discussed, and the committee agrees on a harmonized version in the target language (by consensus or by vote). The committee pays special attention to the similarity of instruction format and response options between the original (source) and harmonized versions.	Coordinator Lunch for participants of the meeting (\$100)	5 hours (1 hour pre-, 2-hour meeting, and 2 hours post-)
<i>Cognitive debriefing: testing the instrument on a small group of relevant users (e.g., patients) in order to test the harmonized version and to check understandability and cultural relevance of the translation.</i>	T08. Cognitive debriefing interviews: The coordinator hires a research professional** with appropriate expertise, and prepares cognitive debriefing interviews with him/her. T09.The research professional recruits 5 to 15 native language speakers to participate in the interviews, compensates for their time (e.g., \$25 gift credit card), and produces a report. For each item, s/he presents the harmonized version (column G) and the comments and suggestions from the interviewees (column H).	Interviewer salary/contract, and \$125 to \$500 (gift cards)	50 hours (5 hours per interview)
<i>Review of cognitive debriefing results (users' understandability of the translation) and finalization.</i>	T10.The coordinator organizes another meeting of the bilingual multidisciplinary committee. The committee reviews the results of the cognitive debriefing, and produces a final version in the target language. For each item, the committee agrees on this version by consensus or vote (column I).	Coordinator Lunch (\$100)	5 hours
<i>Proofreading: editing of the translation to highlight and correct any typographic and grammatical error.</i>	T11.The coordinator hires a professional editor whose mother tongue is the target language for proofreading. The editor corrects typographical and grammatical errors (column F: final edition).	Editor fees (\$100 per page)	35 hours
<i>Final report: report written at the end of the process documenting each translation.</i>	T12.The coordinator prepares a final report documenting all steps and versions, and the team reviews it.	Coordinator	40 hours

\*Estimated BUDGET and TIME are based on the RR-TCA of the 28-item (6 pages) CHILD-BRIGHT questionnaire; \*\*Need help? Contact us: [supportunit.fammed@mcgill.ca](mailto:supportunit.fammed@mcgill.ca)

## RR-TCA EXAMPLE & RESOURCES



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### Harmonization meeting

After the forward- and back-translations are complete, we organized a harmonization meeting with the expert team (which includes researchers and other stakeholders who are bilingual). In this meeting, we prepared and printed the following documents:

1. The original questionnaire;
2. The merged version of the two forward-translation versions;
3. The two back-translation versions.

One person was the organizer and responsible for taking notes (coordination role). Going item by item, we decided as a group if we agreed with the translation. We decided on the best translation when there was a discrepancy between translations. We took notes of the items that were problematic for future meetings. After the meeting, we reconciled the differences and the decisions into one initial translated questionnaire (V1).



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### Cognitive debriefing

We hired and trained a bilingual research assistant with experience conducting interviews. She performed the first pilot interview with one of the researchers, and then was responsible for recruiting participants, organizing the interviews, recording them and preparing a report on the results with suggestions for each item that was clear or unclear. Participants were recruited in batches of three until saturation was reached (no new suggestion).

See below three resources for conducting the cognitive debriefing: (R1) an email invitation template; (R2) an interview guide template; and (R3) a template for reporting results. Note: a request for ethical approval may be needed depending on the context (contact your Institutional Review Board for more information).

#### R1. Invitation to participate:

Hello everyone,

We are working on a transcultural adaptation of a questionnaire from English to French. I would like to invite you to participate in a short interview (in-person or over Skype at a time that suits you). This interview should take approximately 20-30 minutes.

The purpose of the interview would be to check that a questionnaire on stakeholder engagement in research that was translated from English to French, is clear and easily understood.

If you are willing to be interviewed, please contact XXX to set up a time.

#### R2. Interview Guide:

Introduction (...)

Name of the person responsible of the project (...)

Contact information (...)

For each item (instruction, question and response option):

- Ask the interviewee to read the item
- Ask: "is this item clear?"
- For each unclear item, ask to comment and provide suggestions as to how to rewrite the statements to make the language clearer.

### R3. Results/Report

The report on cognitive debriefing provided a description of the participants and interviews. For each items, the report included a summary of suggestions on how to revise them as well as an appendix with detailed comments by each participant.

The report also included a summary table of the results with the participants in rows and items in columns (0 denoting not clear and 1 clear). This is an example of what the table would look like:

\* RU = Russian, FR=French, QC=Quebecois French, SW=Swiss

\*\* Items that scored less than 7/8 in clarity were discussed in detail in the final team meeting

Participants		Harmonized version of the questionnaire (target language)							
Name	Mother tongue	Instructions	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7
P1	RU	1	0	0	1	0	1	1	1
P2	FR	1	1	1	1	1	1	1	1
P3	FR	1	0	1	1	1	1	1	1
P4	QC	0	1	1	1	1	1	1	1
P5	QC	1	0	1	1	1	1	1	1
P6	SW	0	1	1	1	1	1	1	1
P7	QC	1	0	0	1	1	1	1	1
P8	QC	1	1	1	1	1	1	1	1
Total score**		6	4	6	8	7	8	8	8



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### Final team meeting following cognitive debriefing

After the cognitive debriefing interviews were completed and the report was prepared, a second meeting with the expert team has been organized. For this meeting, we prepared and printed the following documents:

1. The original questionnaire;
2. The translated questionnaire (V1);
3. The cognitive debriefing results report including the above-mentioned table with scores on clarity.

During the meeting, we examined the items that scored less than 7 (maximum score being 8). We discussed alternatives for clarifying them. For each item, a consensus was reached through iterative discussion. After the meeting, a final version of the translated questionnaire (V2) was prepared and disseminated to the stakeholders.

### References

1. Wild D, Grove A, Martin M, et al. Principles of Good Practice for the Translation and Cultural Adaptation Process for Patient-Reported Outcomes (PRO) Measures: Report of the ISPOR Task Force for Translation and Cultural Adaptation. *Value in Health*. 2005;8(2):94-104.
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3. Sousa VD, Rojjanasrirat W. Translation, adaptation and validation of instruments or scales for use in cross-cultural health care research: a clear and user-friendly guideline. *Journal of evaluation in clinical practice*. 2011;17(2):268-274.
4. Beaton DE, Bombardier C, Guillemin F, Ferraz MB. Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*. 2000;25(24):3186-3191.