

International Guidelines for Cross-cultural Adaptation of Health Assessment Instruments: A Tutorial

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Stroke and aphasia evidence-based practice would be enhanced, and comparisons across countries would be facilitated, if international guidelines (Hutchinson et al., 1997; Wild et al., 2005) for cross-cultural adaptation of health assessment instruments (Fawcett, 2011) were followed. A broader evidence-base for effective service delivery planning based on results from large scale randomised controlled trials requires that the same stroke and aphasia assessment instruments are validated in different cultures. Therefore, good practice for cross-cultural adaptation of instruments and practical examples of instruments in stroke and aphasia (Flowers et al. 2013; Long et al. 2008) will be presented. Finally, issues related to the distribution of health assessment tools will also be discussed.

When the target population of an assessment instrument differs from the original, regarding culture, country, or language, to conserve the sensibility (Geisinger, 1994), the following stages (Beaton et al., 1998; Guillemin et al., 1993) of adaptation must be implemented: translation; synthesis of the translations; back-translation; committee review and pre-testing. Each of these stages has specific recommendations to follow and these will be discussed.

The *first stage* of a cross-cultural adaptation involves the production of several translations by, at least, two independent translators (Beaton et al., 1998). In a *second stage* the two translators synthesise the results of the translations, producing one common translation (Beaton et al., 1998). In the *third stage*, it is necessary to produce as many back-translations as translations, based on the synthesised translation (Geisinger, 1994; Hutchinson et al., 1997). The *fourth stage* consists of an expert committee meeting, resulting in a pre-final version for field testing. The *fifth stage* comprises a cognitive debriefing to test alternative wording and to verify understandability and interpretation of the translation (Wild et al., 2005). The translation should then be revised taking this feedback into account.

Several well-known instruments in stroke and aphasia have been validated according to these recommendations and comparisons across countries are now facilitated. Three assessment tools, recently adapted to European Portuguese, will be presented as case studies, namely: two tools that assess activity limitations – Frenchay Activities Index (FAI) – Versão Portuguesa (Jesus, Marques, Roberto, Rosa, & Patrício, In Press) and

Barthel Index (BI) – Versão Portuguesa (Jesus, Marques, Roberto, Rosa, & Patrício, In Press); one instrument that assesses activity limitations and participation restrictions – Communication Outcome after Stroke scale (COAST) – Versão Portuguesa (Jesus, Silva & Patrício, In Press).

Although commonly ignored, there are several requirements that should be respected when distributing or publishing a validated tool. Finally, there are different models and licensing strategies used by authors of tools, public institutional depositories such as the Center for Outcome Measurement in Brain Injury (COMBI) <http://tbims.org/combi> in the USA and the Advanced Communication and Swallowing Assessment (ACSA) <http://acsa.web.ua.pt> in Portugal, and private companies such as book publishers and the MAPI Research Trust PROQOLID database <http://www.proqolid.org> in France. These also have specific requirements which will be described.

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