

# Adapting an Existing Questionnaire for Different Cultures and Languages

## Introduction

Rather than develop a new questionnaire, it is sometimes possible to use or adapt an existing one. While this may enable comparison with other studies, there are a number of important considerations when adapting another questionnaire specifically when it is planned to be used on a different population.

Adapting an existing questionnaire for a different purpose other than that for which it has been originally developed, can have serious implications for its reliability and validity. Because a questionnaire is reliable and valid in one setting, it cannot be assumed this is the case in all settings. Even a slight alteration to the wording of a question or the order of questions can influence how people answer, so laying claim to the original questionnaire's reliability and validity should be avoided following adaptation and prior to gaining evidence to support the claim. Therefore, before any adapted questionnaire is put into the field, it should undergo rigorous evaluation to establish its reliability and validity.

One reason why a questionnaire might require adaptation is when it is required for use with people of different cultures and languages than originally developed for. When this is the case, there are very strong arguments against the assumption that literally translating the content of the questionnaire into the required language will be sufficient. Emphasis should be placed on achieving equivalence across the different cultural or language groups of the concepts measured and the items tapping five concepts, which are:

1. *Item/content equivalence*
2. *Semantic equivalence*
3. *Operational equivalence*
4. *Functional equivalence*

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## Conceptual equivalence

Investigating conceptual equivalence involves exploring the ways in which health and illness are conceptualized, as well as the values placed on them and appreciating that such meanings and values are part of the culture's social reality. How individuals experience an illness is a cultural phenomenon reflecting beliefs about aetiology, illness behaviour and the assigned roles of the respective parties. Reluctance to express forms of emotional distress for example can be observed in a number of cultures for a variety of reasons.



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## Item/content equivalence

In the same way that health and illness may be conceptualized in different ways across cultures, the validity or relevance of the questionnaire items representing a given domain or concept may also vary across cultures with respect to specific social and leisure activities or illness behaviour. Item or content equivalence is established when the items estimate the same parameters or describe a phenomenon in each culture.



3

## Semantic equivalence

Semantic equivalence is about retaining the meaning of each item after its translation into the target language(s) and is a key issue in achieving culturally equivalent questionnaires. Differences between languages and cultures in the salience of concepts, idioms and colloquialisms mean a literal translation from one language to another can be inappropriate. Literal translation, while allowing for changes in the word order and syntax, maintains a one-to-one correspondence between the words, possibly resulting in incongruence.

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## Operational equivalence

The methods of collecting data, i.e. mode of administration, questionnaire format, instructions and measurement methods, will affect the results differently in the different cultures or language groups. Operational equivalence will be achieved when these different elements are shown not to affect the results.

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## Functional equivalence

Functional equivalence is the extent to which the questionnaire does what it is supposed to do equally well across the different cultural/language groups. Assessing the extent to which functional equivalence has been achieved involves assessing the degree to which the other types of equivalence (described here) have been carried out. Only if reasonable equivalence' has been achieved in all of the areas can it be argued that the results obtained are likely to be comparable.



# The translation process

The forward-backward translation procedure (Brislin, 1970) is the one most commonly quoted in the adaptation and translation process of a questionnaire. First, a forward translation is carried out using a bilingual person or persons who translate the questionnaire from language A to language B. A bilingual person or persons then back translate the forward translation from language B to language A. Ideally, a panel of bilingual experts then compares the equivalence between the forward and backward translation. The author of the questionnaire should also play a significant role here in terms of clarifying any incongruence's following translation. This procedure should continue until 'satisfactory equivalence' is achieved between the original and translated versions.

- Use linguistically competent translators who are conversant in the target languages
- Translators should be fully aware of the objectives of their role in the process and ideally have prior experience in adapting health-related questionnaires for cross-cultural use
- Some form of structured evaluation by the translators should be available, e.g. regarding difficulties experienced during the process
- Forward translations should be produced by at least two independent translators to enable the identification of errors and misunderstandings resulting from the source version.
- As many back translations as forward translations should be produced
- A group of bilingual speakers should review and verify the equivalence between the source and final versions
- Pre-testing the translated questionnaire should be carried out on a representative sample of the population under study

# About Health Outcomes Insights

Health Outcomes Insights is an independent research consultancy serving academia, life science researchers, healthcare agencies and the pharmaceutical industry, get targeted answers to patient behaviour, experience and health outcomes across a range of conditions and diseases – with particular expertise in diabetes.

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