

## **7 Criteria for crosscultural use**

In order to validate health status measures for cross-cultural use a number of criteria are required (Flaherty et al., 1988; Bullinger et al., 1993). Whenever a translation of the coop/wonca charts is not available in a language, researchers are requested to follow the guidelines which are given in this paragraph: content equivalence; semantic equivalence; technical equivalence; criterion equivalence and conceptual equivalence.

### **Content equivalence**

For cross-cultural research each item in the instrument must be examined to establish whether the concept it measures is relevant to the cultural setting in which it is to be used. It would be for example, inappropriate to include items which are considered taboo in certain cultures, for instance certain aspects of sexual behaviour.

### **Semantic equivalence**

In the translation of 'each' item or statement, its meaning must remain the same as the original version. Therefore in the translation process emphasis must be placed on retaining the essence of what is being asked or stated rather than obtaining a direct literal translation of the words.

### **Technical equivalence**

Technical equivalence of an instrument which has been cross-culturally adapted, can be assessed in a number of different ways. One approach is to establish the concurrent validity of the measure, which involves obtaining data using different methods (e.g. interview and self administration) or from different instruments (including the translated instrument) which measure the same phenomena. If there is agreement between the findings obtained with the translated instrument and the other measures of the same phenomena then concurrent validity of the translated measure is supported.

### **Criterion equivalence**

Criterion validity of an instrument refers to its relationship to previously established and independent criteria which does not necessarily mean another instrument. For example criterion validity would be established if our translated instrument behaved in a predicted way by the use of health services in the following year.

### **Conceptual equivalence**

Evidence relating to the conceptual equivalence of an instrument is when the instrument is found to be measuring the same construct/concept (e.g. physical, emotional functioning) in the different cultures. Methods of examining conceptual equivalence include assessing the known relationship between constructs measured by the instrument and responses to other variables in each of the study populations. For instance, if symptomatology is associated with the construct physical dysfunction in the original culture, then findings of significant predicted relationships between these variables and the construct in other cultures would be evidence of conceptual equivalence for the instrument.

Methods in the translation of cross-cultural instruments

To obtain an appropriate cross-cultural outcome measure several steps have to be taken before satisfactory equivalence with the original language version is established.

The first, is the translation process and field testing of the translated version.

Secondly, when a final translated version is available this should then be authorized by the authors of the original version in terms of its conceptual basis.

Thirdly, the translated instrument should then be evaluated for its equivalence in terms of reliability and validity with the original version following the procedures outlined above.

#### **Translation process and field-testing**

The most common procedure is a forward and backtranslation in order to establish the semantic equivalence. The initial forward translation is best done by translators who have knowledge about the content area, independently of one another. After discussions of these translations a first draft is available.

A bilingualist with experience in the native language of the original version should then translate this version back into the original language. Comparison with the original version should then be carried out followed by any necessary modifications to obtain a suitable translated version. This translated version of the questionnaire should be completed by the target group of respondents in the presence of interviewers, in order to identify problems in the interpretation of the content experienced by the respondent.

Throughout the process of translations and field testing the authors of the original version should be informed of the findings in order to obtain a final and authorised translated version of the instrument.

#### **Translation procedure of the COOP/WONCA charts**

About half of the translated versions followed the procedure of forward and backward translations. The Italian and the Swedish version were translated straightforward from the English version without backward translation; the Chinese, Dutch, Finnish, German and Norwegian translation used formal double forward-backward translation using native speakers of the two languages concerned.