A model of equivalence in the cultural adaptation of HRQoL instruments: the universalist approach

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The health-related quality of life (HRQoL) literature presents a confused picture of what ‘equivalence’ in the cross-cultural use of HRQoL questionnaires means and how it can be assessed. Much of this confusion can be attributed to the ‘absolutist’ approach to the cross-cultural adaptation of HRQoL questionnaires. The purpose of this paper is to provide a model of equivalence from a universalist perspective and to link this to the translation and adaptation of HRQoL questionnaires. The model evolved from reviews of the HRQoL and other literatures, interviews and discussions with researchers working in HRQoL and related areas and practical experience in the adaptation and development of HRQoL instruments. The model incorporates six key types of equivalence. For each type of equivalence the paper provides a definition, proposes various strategies for examining whether and how types of equivalence can be achieved, illustrates the relationships between them and suggests the order in which they should be tested. The principal conclusions are: (1) that a universalist approach to the cross-cultural adaptation of HRQoL instruments requires that six types of equivalence be taken into account; (2) that these are sufficient to describe and explain the nature of the cross-cultural adaptation process; (3) that this approach requires careful qualitative research in target cultures, particularly in the assessment of conceptual equivalence; and (4) that this qualitative work will provide information which will be fundamental in deciding whether to adapt an existing instrument and which instrument to adapt. It should also result in a more sensitive adaptation of existing instruments and provide valuable information for interpreting the results obtained using HRQoL instruments in the target culture.

Qual. Life Res. 7: 323–335 © 1998 Lippincott-Raven Publishers

Key words: Equivalence; health-related quality of life; questionnaire; cross-cultural; adaptation.

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Introduction

In a previous paper we presented evidence of confusion in discussions of equivalence between different language versions of generic health-related quality of life (HRQoL) questionnaires. There were, for example, references to 19 different types of equivalence and substantial variation in the way some types of equivalence were defined. We argued that much of that variation, particularly in relation to conceptual evidence, could be traced to the ‘absolutist’ approach adopted in much cross-cultural work in the HRQoL field.

The absolutist approach makes the initial assumption that there will be a nil or negligible change in the content and organization of concepts such as HRQoL across cultures, and that careful attention to linguistic elements will make a questionnaire developed for use in one culture acceptable for use in another culture. We have argued that such an assumption should be supported by strong theoretical and empirical evidence and that this is currently not the case in the HRQoL field.

We therefore recommended that researchers adopt a universalist approach to cross-cultural research. Such an approach does not make the prior assumption that constructs will be the same across cultures and, consequently, implies a need to establish whether the concept exists and is interpreted similarly in the two cultures and, if so, the degree to which it is interpreted similarly. The universalist approach aims to elicit those aspects of a concept which are genuinely universal across cultures and to use only those in developing instruments which measure the concept in different cultures. The model of equivalence presented here aims to reflect this approach, an approach which may be particularly important when HRQoL questionnaires are increasingly ‘exported’ to cultures markedly dissimilar to the originating culture. One outcome of adopting a universalist perspective may
be to suggest that a questionnaire is not suitable for translation into the target language before translation takes place. The model presented here will also be useful in suggesting which existing instruments are most suitable for use in other cultures, as well as providing information which will be useful in interpreting the results obtained with any instrument.

The objectives of this paper are (1) to present a model of equivalence based on the universalist approach, (2) to provide a definition for each type of equivalence included in the model, (3) to propose various strategies for examining whether and how the different types of equivalence can be achieved (4) to illustrate the relationships between them, and to suggest the order in which they should be tested. This model will also place current translation methodologies within a broader context and provide a cogent basis for critiquing and reviewing those methodologies, as well as highlighting the implications for cross-cultural research in the HRQoL field.

**Types of equivalence and their assessment**

**Conceptual equivalence**

Investigating conceptual equivalence essentially involves exploring the ways in which different populations conceptualize health and quality of life (QoL) and the values they place on different domains of health and QoL. The universalist approach to cross-cultural research in particular guards against the automatic assumption that domains which are relevant to HRQoL in one culture will be (equally) relevant in all cultures and implies that such claims should be tested empirically before adapting an instrument. It has been shown, for example, that the domain of family relationships may well be more important in Spain than in North America and in Kenya, that the nature and range of familial relations is different to that represented in existing instruments. The definition of conceptual equivalence offered here is at odds with many of the definitions offered in the HRQoL literature, but is an important theoretical baseline within the universalist approach. Conceptual equivalence between questionnaires will be achieved when the questionnaire has the same relationship to the underlying concept in both cultures, primarily in terms of the domains included and the emphasis placed on different domains. Before the degree of conceptual equivalence can be decided, however, careful research will be necessary to determine how health and QoL are conceptualized in other cultures, particularly in terms of the nature of and emphasis on particular domains. This stage of the process provides a background against which the legitimacy of adapting a questionnaire can be judged, as well as providing a context for the interpretation of results. This definition of conceptual equivalence also implies that it will not be possible to achieve or examine conceptual equivalence simply through translation and the post hoc analysis of results obtained using the questionnaire.

**Methods for investigating conceptual equivalence.** An initial assessment of the conceptual equivalence of HRQoL in the source and target cultures will involve examining the nature of the HRQoL concept in both cultures. Where there has been substantial research on the nature of HRQoL in the source culture, information on its form and content can be obtained through literature reviews concerning the theoretical and empirical explorations of the concept per se, as well as through reviews of instrument development.

In the target culture, there is a range of potential...