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TRANSLATING FOREIGN-DEVELOPED INSTRUMENTS TO GUIDE NURSING PRACTICE IN THE CZECH REPUBLIC: DO THEY ENCOURAGE EVIDENCE-BASED NURSING?

PŘEKLAD ZAHRANIČNÍCH NÁSTROJŮ PRO POSKYTOVÁNÍ OŠETŘOVATELSKÉ PÉČE V ČESKÉ REPUBLICE: PODPORUJÍ OŠETŘOVATELSTVÍ ZALOŽENÉ NA DŮKAZECH?

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Abstract

The article focuses on using foreign-developed instruments to conduct nursing research and to guide nursing practice in the Czech Republic (CR). Foreign sources mention a number of challenges associated with instrument translation and recommend a course of action to achieve linguistic and cultural equivalence, and ultimately, to ensure instrument validity. However, Czech authors translating and using foreign instruments often do not provide any information about the translation process they used. This shortcoming does not allow the nursing community to assess if adequate measures were implemented to minimize any possible validity threats associated with the translation process. The article reviews some of the methods that can be used to ensure that research instruments translated from one language to another retain their validity across languages and cultures.

Abstrakt

Článek je zaměřen na problematiku používání zahraničních výzkumných nástrojů v ošetřovatelském výzkumu a v oblasti realizace ošetřovatelské péče v České republice (ČR). Čeští autoři používající zahraniční nástroje často neposkytují informaci o metodě

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překladu. Tento nedostatek neumožňuje sestrám posoudit, zda byla učiněna adekvátní opatření, která maximálně snižují rizika spojená s překladem. Článek shrnuje metody, které mohou být použity k zajištění validity přeložených výzkumných nástrojů v různých jazycích a kulturách.

Key words
Instrument validity, linguistic and cultural equivalency, nursing research, research instrument, translation

Klíčová slova
Validita nástroje, jazyková a kulturní shoda, ošetřovatelský výzkum, výzkumný nástroj, překlad

Introduction

Now more than ever before, the nursing community in the CR is using information from abroad to guide nursing research and practice. Frequently, nurse-researchers use foreign-developed research tools because in a small country like the CR, only a limited amount of original research instruments can be generated. Examples include various pain scales, pressure-sore risk scales, and depression scales, which are used to generate research in the CR and whose findings lead to recommendations for best practice. This procedure involves the necessity of translating the instrument from the original language into Czech. However, such a process is laden with risks, mainly because linguistic and cultural equivalencies may not always be achieved, and even nursing textbooks on nursing research – for example, Polit and Beck's "Nursing research: generating and assessing evidence for nursing practice" (2008)- are starting to address this concern. Polit and Beck (2004, p. 327) stress that if an instrument is translated into another language, the nurse researcher needs to ensure that

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the content of all the items is relevant in the new culture and that semantic equivalence is achieved (i.e., the meaning of each item remains the same after translation).

Objective

The article describes some questions related to the translation process and describes several translation methods whose aim is to ensure that the translated instrument is equivalent to the original version so that any possible validity threats are minimized.

Background: Foreign-Developed Scales Used in the CR

Two common instruments used to provide mainly nursing care and to conduct nursing research in the CR include Braden and Norton scales for predicting pressure sore risk. (Meluzínová et al., 2006, p.147) Meluzínová et al.(2006, p.147) provide the Czech version of both scales; however, information about the translation process (or a link to a source that would contain such information) is not available.

In some cases, foreign-developed scales are adapted, for example an adapted version of the Morse Fall Scale is available in the Czech translation of a book originally written in English, "Reducing the Risk of Falls in Your Health Care Organization". (Joint Commission on Accreditation of Healthcare Organizations, 2005, p.78-79) Another example is a fall-risk scale by Jurásková, which was developed in 2006 by adapting Conley's scale and which is available on the website of the Czech Nurses' Association. (Česká asociace sester, 2007, p.6)

These two examples lead to an important question: why are original scales sometimes adapted? Are the adapted versions tested for validity and reliability? In the case of the Morse Fall Scale, such information was not included in the above mentioned book. In the second case, the Czech Nurses' Association's website has

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not provided a full citation for Jurásková's work, which makes it impossible to locate the original source and to learn about the process by which Jurásková adapted and verified her new method.

Methods

A review of recent literature on methods of research instrument translation was conducted. The literature review consisted of accessing the EBSCOhost database and conducting a search using the following combination of key words: "research", „translation", and "methodology". The article describes some of the most commonly used translation methods described in the publications that were obtained through the mentioned literature search and includes classification of the methods based on rigor of the translation process.

Brislin's Translation Methods

Richard W. Brislin is one of the pioneers in this field, and in 1970 he developed four translation techniques that aim to achieve content equivalency between the original and translated instruments: a) back-translation, b) bilingual technique, c) committee approach, and d) pretest procedure. (Cha et al., 2007, p.388)

Back-Translation Model

Brislin's back-translation model consists of a number of steps and *independent* back-translations by a team of translators. (Cha et al., 2007, p.390) The first translator blindly translates the instrument from the original language to the target language, then a second translator independently back-translates the instrument to the original language. (Cha et al., 2007, p.388) Next, the two versions of the instrument in the original language (the original instrument and the back-translated version) are compared and assessed for equivalence. This process is repeated

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three times, using a different translator for each translation step. (Cha et al., 2007, p.390) In many cases, this technique may not be realistic due to its complexity and the fact that so many translators are needed. Problems may arise if the original and target language have a different structure, the original language contains emotional or metaphorical terms, idioms, or words for which the target language does not have equivalent terms or expressions. (Cha et al., 2007, p.388) In addition, the target version may retain much of the original structure of the original language, which may make back-translation relatively easy; this does not mean that the target-language instrument is appropriate. (Maneesriwongul, Dixon, 2004, p.176)

Bilingual Technique

The bilingual method consists of administering the instrument in both the original version and the target version to bilingual participants. (Brislin, cited in Cha et al., 2007, p.388) The responses of the participants using the two versions are compared, and if any discrepancies are found, it is possible that the versions of the instrument are not equivalent. (Cha et al., 2007, p.388)

Committee Approach

The committee approach means that a group of bilingual experts translates the instrument (Brislin, cited in Cha et al., 2007, p.388); at least three bilingual experts should participate in this method. (Cha et al., 2007, p.388) The group is likely to recognize a translation error made by one of the experts; however, Maneesriwongul and Dixon (2004, p.176) warn that committee members may be reluctant to point out that a colleague has made a translation error.

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Pretest Procedure

This method consists of using a pilot study to test the translated instrument and to identify any weak areas that need to be corrected. (Brislin, cited in Cha et al., 2007, p.388) The main aim is to ensure that the study participant understands all the questions and procedures that the instrument contains. (Maneesriwongul, Dixon, 2004, p.176)

Classification of Translation Methods

In 2002, Maneesriwongul and Dixon (2004, p.176) conducted a search of the CINAHL database and analyzed translation methods used to translate quantitative research instruments. They reviewed 47 research studies and identified 6 translation methods, which they attempted to classify into categories according to the rigor of the translation process. Within most of the categories, the authors noticed a very diverse approach to translation, which they believe may be due to the fact that no standards addressing translation exist (Maneesriwongul, Dixon, 2004, p.181). The categories are listed below:

1. *Forward-only translation*

   Findings of a research study using forward-only translation are, according to Maneesriwongul and Dixon, "questionable…[as obtained] differences might be due to errors in translation". (2004, p.180)

2. *Forward translation with testing*

   This technique is of a somewhat higher quality than the forward-only translation technique; forward translation is followed by testing of the target-language version, either with monolingual or bilingual subjects. (Maneesriwongul, Dixon, 2004, p.180)

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3. *Back translation*

   As explained above, this method consists of translating the instrument from the source language to the target language, then back-translating the target-language instrument to the original language. However, a series of translations to the target language, back-translations, and comparisons consistent with Brislin's method was not always performed. (Maneesriwongul, Dixon, 2004, p.180) In addition, the number of translators engaged in the process varied, and in some studies, the number of translators was not mentioned at all. (Maneesriwongul, Dixon, 2004, p.180)

4. *Back translation and monolingual test*

   This method consists of two parts: conducting back translation as in category 3, then testing the target-language instrument with monolingual subjects. (Maneesriwongul, Dixon, 2004, p.180) In the reviewed studies, testing focused on clarity, comprehensiveness, and cultural relevance. (Maneesriwongul, Dixon, 2004, p.181)

5. *Back translation and bilingual test*

   This method consists of two parts: conducting back translation as in category 3, then testing the target-language instrument as well as the original instrument with bilingual subjects. (Maneesriwongul, Dixon, 2004, p.181) Within this category, the approach to minimize a recall effect varied. (Maneesriwongul, Dixon, 2004, p.181)

6. *Back translation and monolingual and bilingual test*

   Some studies used back translation, then tested the target-language instrument with monolingual subjects; in addition, they tested the original instrument as well as the target-language instrument with bilingual subjects (Maneesriwongul, Dixon, 2004, p.181).

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The authors suggest that their 6 categories could be used as a kind of hierarchy, with category 1 requiring the least amount of effort and category 6 requiring the most effort to ensure validity of translation. They stress that "all studies involving instrument translation should include information to establish that translation processes were adequate" (Maneesriwongul, Dixon, 2004, p.181), adding that information about the translation process should be included even if the instrument was translated by someone else. (Maneesriwongul, Dixon, 2004, p.181)

Current Instrument Translation Challenges

The back-translation model is quite popular but a sufficient number of bilingual translators may not always be available. In addition, bilingual translators may be acculturated to the host language and therefore may be "different" from the target, monolingual population. (Cha et al., 2007, p.389) To overcome some of these problems, a number of researchers have used a combination of several techniques. However, even combined methods contain weaknesses; some of the most frequent limiting factors are excessive time and cost required to complete the process. Therefore, none of the above 6 categories can be recommended as the best approach; instead, the researcher should assess the situation and attempt to select the best strategy based on all the relevant factors.

Instrument translation may be complicated even further if one thinks that the instrument may be dependent on the culture in which it was developed. Maneesriwongul and Dixon stress that "the values reflected by an instrument and the meanings of its component constructs may vary from one culture to another" (2004, p. 175), which underscores the importance of assessing not only the linguistic aspect of an instrument but also the cultural aspect. Some researchers use a so called decentering method – adapting

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the item so that it is culturally familiar. (Peña, 2007, p.1261) Sometimes, it may be extremely difficult to achieve equivalency between the source and the target language, and the researchers have to resort to replicating the instrument development process in the target language. (Maneesriwongul and Dixon, 2004, p.183)

Conclusion

The translation and validation processes associated with the use of foreign-developed research instruments may be complicated. However, without paying sufficient attention to this issue, poorly translated instruments are likely to be sometimes used to conduct research. Obviously, such research is flawed, and it may lead to flawed practice as well if the findings are disseminated in the nursing community. Therefore, Czech nurses cannot afford to ignore the issue. Nurses should start demanding information concerning instrument translation and validation and evaluation of linguistic and cultural equivalence. Furthermore, adapted versions of foreign-developed instruments should include information on the reasons for which the original instrument was adapted, together with information on the validation process of the adapted version.

Finally, the Czech nursing community could work on establishing a guideline concerning the most appropriate and acceptable translation methods. By doing so, Czech nursing would be one step closer to ensuring that research findings generated in the CR provide a sound basis for nursing care.

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