Translation of the Nursing Clinical Facilitators Questionnaire (NCFQ) to Norwegian language

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SUMMARY

The translation and adaptation of English instruments to be used with populations speaking other languages is an important and complex process which is attracting increased attention in nursing and health-related research. The aim of this article is to describe the translation process of the Nursing Clinical Facilitators Questionnaire (NCFQ) for testing in Norway. The instrument is a 28-item-questionnaire with a Likert-type (1–5) scale ranging from the descriptions “strongly agree (1) to strongly disagree (5)”. The aim of the instrument is to measure the efficiency of, and satisfaction with the supervision received from the nurse students’ perspective. The NCFQ questionnaire was translated in six phases. The translation process was conducted systematically by applying the three methods described in the literature: the methods of forward-translation, back-translation and comparison followed by an empirical study (pilot test). The methods were chosen to test the quality of translation, establish semantic equivalence of the translated instrument and to estimate the cross-cultural relevance of the instrument. The translation process has given prerequisites to use the NCFQ questionnaire in a larger study and a possibility to compare different models for supervision of nursing students in the clinical part of their education.

Introduction

The transition of nursing education from purely clinical settings to combined academic and clinical settings has not been without tension, challenges, and conflicts. A supportive environment has been described as significant to promote quality in students’ learning experiences (Hendersson et al., 2006). Practice-based professions such as nursing have traditionally relied on clinical staff to fulfill supervision of the students in the practice settings. A continuous development within practice education is also going on, such as more community-based practice education, and more partnerships among academic and practice organizations (Budgen and Gamroth, 2008). There is much discussion in the literature as to the terms that are used concerning supervision models and also lack of clarity in defining the role of the RN who supervises the clinical practice of the student nurse (Mannix et al., 2006). Supervision is often used as an overarching concept and refers to the guidance, support and assessment of student nurses by clinical staff (Saarikoski et al., 2007). Research studies often evaluate specific supervision or practice education models while few compare different models to each other (Budgen and Gamroth, 2008). Current models emphasize one-to-one supervision (ENB, 2001; Saarikoski et al., 2007) while earlier the traditional model was group supervision (Heinonen, 2003). Terms such as mentor, assessor, facilitator and supervisor are also used interchangeably in similar models and covers diverse roles in both clinical and community settings (Billay and Myrick, 2008). The varied ways RNs understand their role with students may promote or impede the quality of student learning and professional development. The difficulty with the evaluation of the students’ experiences of their clinical training has been the lack of suitable instruments. Clinical supervision has to a great extent been based on the supervisors’ own interest in receiving feedback and on their supervisees’ subjective assessment (both oral and written). Translation of earlier developed instruments may often be the choice when addressing research questions to groups whose language is not English. However, translating an instrument is a demanding and sometimes slow procedure (Hyrkäs et al., 2003) but, a well-translated tool may then facilitate cross-cultural comparisons.

Aim of the study

The purpose of this paper is to describe the translation process of the NCFQ instrument and to test the translated instrument in a pilot study. The specific objectives were to:

1. critically review the previous translated instrument;
2. translate the instrument from source language to target language;
3. compare the original and translated instrument in order to evaluate the quality of translation and semantic equivalence;
4. collect a pilot sample with a translated instrument for empirical testing.

Literature review

Translation methods

Translation is understood by Ricoeur (2006) in both a specific and a general sense. In the specific it signals the work of translating the meanings of one particular language into another. In the more generic sense, it indicates the ontological act of speaking as a way of not only translating oneself to oneself but also translating oneself to others. The translation and adaptation of English instruments to be used with populations speaking other languages is an important and complex process which is attracting increased attention in nursing and health-related research. The translated instrument is only as good as the instrument translation and validation (Duffy, 2006). There are three types of translation methods: (1) one-way translation, (2) committee approach, and (3) forward- and back-translation. One-way translation is the fastest but according to Peters and Passchier (2006) concerns arise about the quality of the translation. Studies have shown that one-way translation results in lower validity and reliability of the instrument (Erkut et al., 1999). Translation by committee asks two or more bilingual individuals to translate the text or instrument from source language into the target language, working either separately or as a team (Carlson, 2000). According to Jones et al. (2001) back-translation requires, at a minimum, one bilingual expert who translates the instrument from the source language into the target language (forward-translation) and a second bilingual expert who independently translates the instrument back into the source language (back-translation) without any reference to the original instrument’s words or phrases. The original and back translations are then compared for linguistic unity or equivalence. Translating an instrument from one language to another requires the researcher to provide evidence that the meaning of the items in the target language version is equivalent to the items in the source language (Varricchio, 2004).

Equivalence of the translated instrument

Flaherty et al. (1988) describes five types of cross-cultural equivalence i.e. content, semantic, technical, criterion, and conceptual. Content equivalence means that each item’s content is relevant in each culture; however, some constructs cannot be introduced in instruments intended for other cultures. According to Cha et al. (2007) the problem of grammatical–syntactical equivalence more often occurs when long passages need to be translated. By using instruments with simple and short sentences this problem can be reduced. Semantic equivalence emphasizes similarity of meaning of each item in each culture after translation. Even with appropriate processes, concerns may relate to regional or national idiomatic differences. Technical equivalence means that the data collection method is comparable. Criterion equivalence means that the interpretation remains the same when compared with the norm for each culture. Conceptual equivalence means that the instrument measures the same theoretical construct in each culture (Hilton and Skrutkowski, 2002). Eremenco et al. (2005) recommend field testing of the instrument with members of the target culture to check the translation quality and the practical aspects of the test administration. They suggest the following process in field testing: (1) ask the target participants to read and listen to each item and to paraphrase their understanding of each item. If items are well translated, these responses should closely resemble the original version of the item in the source language. (2) pre-test the instrument with a small sample, and (3) determine whether the translated tool is equivalent to the original tool. Piloting is a very valuable step, but according to a review conducted by Guillemin et al. (1993) few studies on translated measures conduct a pilot or pre-test phase.

Methods

Study design

This study describes the translation process, which was conducted systematically by applying the three methods described in the literature: the methods of translation, back-translation and comparison followed by an empirical study (pilot test). The methods were chosen to test the quality of translation, establish semantic equivalence of the translated instrument and to estimate the cross-cultural relevance of the instrument. Before the translation process, a critical examination of an earlier translated version of the instrument was carried through by using two expert panels. The translation process was conducted in six different steps (Table 1): (1) critical review of the content equivalence by two expert panels, (2) translation of NCFQ from English to Norwegian language (forward-translation) by two native nurse teachers (bilingual experts), independently, (3) teacher in English translated the instrument back (back-translation) from Norwegian language into English, without any reference to the original instrument’s wording, (4) comparison of the original and the translated version of NCFQ questionnaire by one bilingual expert and the researchers, (5) revision of the NCFQ questionnaire according to the expert panels’ comments and researchers’ knowledge and experience, and (6) conducting an pilot study among nurse students (n = 55) in order to establish content validity.

Instrument

The instrument, Nursing Clinical Facilitator Questionnaire (NCFQ), was provided by the Centre for Learning and Teaching, University of Technology, Sydney. The aim of the instrument was to measure the efficiency of, and satisfaction with, the supervision received from the nurse students’ perspective. It has been tested in Western Norway (Espeland and Indrehus, 2003). However, a back-translation and pilot test was not performed in that study before using the instrument. The original questionnaire consisted of 28-item with a Likert-type (1–5) scale, ranging from the estimates “strongly agree (1) to strongly disagree (5)”. The same Likert-type (1–5) scale was used in this study. The questionnaire consisted of three parts. In the first part the questions regarded the staff nurses’ supervision (items 1–27), the second part regarded the link teachers’ supervision (items 28–54) and the third part concerned the nurses’ supervision at the student education units (items 55–81). The items were equal in all of the three different parts of the questionnaire. Eight questions concerning nursing students’ background were added. Also nine questions concerning supervision were added on advice from the expert panels (see Results).

Ethical viewpoints

Permission for the translation and use of the NCFQ was obtained from the Centre for Learning and Teaching, University of Technology, Sydney. Permission for the pilot test was obtained from the dean of the University College. In a cover letter attached
to the questionnaire all students and the members of the expert panels were informed that their answers would be used for research purposes, that their identity would not be revealed at any stage, and would maintain the confidentiality of the information.

Completing a questionnaire in a classroom requires elaboration and ethical sensitivity and responsibility from the researcher. The students may experience being captured in the classroom and, thus, being ‘forced’ to give their contribution to the study. The content of the questionnaire may have reminded the students of earlier negative experiences with supervisory staff and this could have a negative effect of the outcomes. However, the voluntary nature of participation and the students’ valuable contribution in illuminating different aspects of the supervision was emphasized. The participants were also informed that they had the freedom to withdraw from the study at any stage. Permission to tape record the panel discussions was obtained. The researchers did not have a personal tutor relationship with any of the participants in the sample.

**Results**

The Norwegian version of the NCFQ was translated in six phases (see Table 1): phase one was a critical review of an earlier translated version of the NCFQ instrument by two expert panel. The panel discussion was conducted at the Department of Health Care Studies at the University College. The first expert panel consisted of five teachers and the second expert panel consisted of three nurses with minimum 2 years of supervision. Three of the teachers had a Master’s degree in Nursing and two had completed supplementary courses in pedagogy and in supervision. Their working experience as teachers was between 10 and 15 years. The nurses had long experience as nurses and as a minimum 2 years of supervision experience. Both panels had got the translated questionnaire in advance and with information about the review. The discussions in the panels were tape-recorded and were transcribed verbatim. The panels’ written comments were also collected. In phase two, two simultaneously independent translations of the original

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**Table 1**
The translation process of the NCFQ described as six different steps.

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<tr>
<th>Purpose</th>
<th>Method</th>
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<tr>
<td>1. Purpose</td>
<td>Critical review of a previous translated questionnaire</td>
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<tr>
<td>2. Purpose</td>
<td>Translation of the original English version of the NCFQ questionnaire to Norwegian</td>
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<td>3. Purpose</td>
<td>Translation of the Norwegian version into English</td>
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<td>4. Purpose</td>
<td>Critical review of the original and translated version of the NCFQ questionnaire</td>
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<tr>
<td>5. Purpose</td>
<td>Review of the semantic equivalence</td>
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<tr>
<td>6. Purpose</td>
<td>Evaluation of students’ view of the revised NCFQ questionnaire</td>
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version of the questionnaire were made from source to target language by two bilingual experts, both teachers, recognized as fluent in English (forward-translation). The third phase implied that a second bilingual expert (teacher in English) independently translated the instrument back into the source language (back-translation) without any reference to the original instrument’s wording. In phase four one bilingual expert met with the researchers to review the back-translation, identify difference in meaning and adapt the target language version to achieve the most accurate culturally equivalent meaning and linguistic sameness. The fifth phase was a discussion between one of the bilingual experts and the researchers in order to review the identified difference in meaning and adaptation of the target language version to achieve the most accurate culturally equivalent meaning and linguistic sameness. The researchers together with one bilingual expert made certain corrections to the final Norwegian translation. This was regarded as consensus in the translation among the group. In this phase the oral and written comments from the expert panels were taken into account. According to the discussions with the expert panels, eight background questions and nine specific questions concerning supervision were added to the final instrument. These items were not in the original version of the NCFQ questionnaire.

Some changes were agreed. One of the members of the expert panel stated:

Students are much alone; they have to learn on their own. Students are not discussing this during their clinical practice. This is leading to experiences of ‘double loneliness’. This has to be emphasized in the questionnaire. Items concerning responsibility, safety and independence in the relationship with staff nurse or nurse educator are also important to address.

Another member of the expert panel stated that:

It is important that you get clear descriptions of the differences between theory and practice. The questionnaire takes for granted that you have the same objectives in the classroom (theoretical studies) as in the clinical practice.

Two items from the original instrument were withdrawn i.e. “The facilitator was approachable” and “The facilitator made sure that the clinical experience was negotiated with clients”. The meaning of the items “The facilitator was approachable” compared with “The facilitator was sufficiently accessible to me during the clinical practicum” was discussed and it was concluded that with two items having a very close meaning, the item “the facilitator was approachable” was withdrawn from the NCFQ questionnaire. According to the comments from the expert panels, facilitators do not negotiate with clients about the clinical experience. This may be a cultural difference. This item could be more relevant in elderly care or in home care for elderly. Considering the setting for this study it was removed. The expert panel also commented on the previous translated questionnaire of item 7 and wished for a more accurate and distinct description; “The facilitator gave me a clear idea of what was expected of me on clinical practicum”. In this version of translation responsibility was highlighted. There was much discussion about the translation of item 11: “The facilitator made me aware of the legal implications of treatment decisions”. This item was translated as follows: “kontaksykepleier gjorde meg oppmerksom på de lover og regler som styr avgjørelser omkring behandling”. Legal implications were translated to; lover og regler som styre avgjørelser (Norwegian).

After the translation process, the instrument was pilot-tested (phase six). The back-translated instrument was validated by testing for reliability and equivalence using a sample (n = 55) of nursing students in their 4th semester. The data for this purpose was collected in June 2007. The translated instrument was delivered added with the background and supervision questions and a covering letter. Questions were also integrated where students were asked to comments if there were some unclear point in the questionnaire. The students answered the questionnaires in a classroom after they had received information verbally from one of the researchers. A total of 55 questionnaires were completed and processed. The response rate was 100% (n = 55). The pilot test resulted in few (five) comments from the students. They commented the item “The facilitator made sure that the clinical experience was organized in advance with nursing staff”. They did not know if the facilitator has negotiated with the staff prior to their clinical practice. One student commented that the nursing staff was not informed at all. Three students commented the item “The facilitator made sure that the clinical experience was negotiated with clients”. According to the comments it was not possible for the students to know. One of the students commented that it was difficult to evaluate the items “The facilitator’s feedback was honest” and “The facilitator encouraged students to gain the maximum benefit from sharing learning experiences”. One of the students also emphasized the importance of asking about their earlier working experience. According to the student, this may influence their answers in the questionnaire.

Discussion

This study has highlighted the importance of establishing different forms of equivalence when translating an instrument in order to ensure reliability of the translated tool. Two expert panels tested the content validity and content equivalence of the instrument. Panel members were purposefully selected because they were known to have expertise in clinical supervision. Expert validity is thus a form of content validity which in this study was demonstrated by asking experts to review the content of an earlier translated version of the NCFQ instrument. The aim was to eliminate totally irrelevant items from the instrument (Chaiyawat and Brown, 2000), but also to re-phrase or supply new wording for items related to the measured constructs where necessary. Problems with vocabulary equivalence occurred when a word did not exist in the target language. This problem was solved with the substitution of a comparable word, expression or a phrase. The expert panel approach used here provided a clearer version of the translated instrument as one committee member’s mistake could readily be identified by another member of the expert panel. The merit of the findings achieved during the panel discussion focus on the instrument validation and re-phrasing or -wording of items. The expert panel involved in this process also eliminated the potential biases of the researchers (Hackey et al., 1995). However, the use of expert panel does not necessarily control shared misconceptions (Maneesiriwongul and Dixon, 2004). Some English words could not be directly translated to Norwegian language and when there was no equivalent word the sentence needed to be circumscribed. Whole items were removed when not applicable or appropriate due to cultural/organizational differences in clinical practice (Achenbach, 1991). In this study, the forward-translation was performed by two native nurse teachers. Studies have shown that one-way translation results in lower validity and reliability of instrument (Berbrogli and Sireci, 1996). The use of back-translation enables the development of an instrument fit for use in international comparative research (Hunt et al., 1991). This approach may produce a linguistically, but not necessarily a culturally appropriate instrument, because it can be assumed that concepts and perceptions differ across cultures (Poss, 1999). As an aspect of the translation process, it is also necessary that the versions of the instrument be systematically compared. Comparison between the original and back-translated versions is necessary, as is comparison between source and target language versions (Tang and Dixon, 2002). Going
through may include language barriers, different cultural meanings of a cultural construct and varied interpretations (Guillemin et al., 1993). The findings achieved with an instrument with low cultural validity have also very likely low practical value (Hyrkäs et al., 2003). In this study, discrepancies between source and target versions were identified and the target language version was modified by one bilingual expert and the researchers together. Eight general background questions and ten questions concerning supervision were added to the questionnaire. The last step in ensuring a culturally equivalent translation is pre-testing of the instrument. In this study, the back-translation was combined with testing of the target language version among nursing students. Clarity and appropriateness of the target language was important to achieve by testing the translated questionnaire among nursing students. Equivalency testing in a small pilot study is considered superior to translation only (Sireci, 1997; Eremenco et al., 2005; Hyrkäs et al., 2003). Tight time schedule could have reduced the validity of the answers. Some students misunderstood different questions (answers to the open questions revealed this) and they may not have had the courage to ask questions about the content in front of the whole class.

Implications

The limitations in this study were that the back-translation procedures were not repeated. Instead one bilingual expert revised the NCFQ and together with the researchers equivalence was achieved between the source and target languages. The pre-test procedure helped the researchers to identify potential problems. The instrument testing data were collected from one country so it may be difficult to generalize these results. However, the creation of a suitable instrument together with the knowledge it would generate, could initiate development and improve the quality of clinical supervision (CS) in practice and enable comparison of different practice models. According to Budgen and Gamroth (2008) the interest in practice education models has intensified. Governments and professional organizations have called for new health care and academic collaborations to improve practice education (AACN, 2003; UKCC, 1999). National directives also stress the importance of balancing academic and clinical competencies. Staff nurses and teachers incorporate a variety of strategies and techniques to enhance reflection and critical thinking of the nursing student. It is therefore of vital importance to either develop valid instruments or to carefully translate existing instruments for evaluation of the clinical part in the nursing education. This translation process in six steps has given prerequisites to use the NCFQ questionnaire in a larger study internationally and a possibility to compare and evaluate different models for supervision of nursing students in the clinical part of their education.

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