Published in final edited form as:

Int J Nurs Stud. 2009 February ; 46(2): 277–287. doi:10.1016/j.ijnurstu.2008.08.006.

Methodological Challenges in Cross-Language Qualitative Research: A Research Review

Allison Squires, PhD, RN

Post-Doctoral Fellow, Center for Health Outcomes & Policy Research, University of Pennsylvania School of Nursing, asq@nursing.upenn.edu, Telephone: W: 215-898-6485, C: 203-314-7256, H: 215-586-4002

Abstract

Objectives—Cross-language qualitative research occurs when a language barrier is present between researchers and participants. The language barrier is frequently mediated through the use of a translator or interpreter. The purpose of this critical review of cross-language qualitative research was three fold: 1) review the methods literature addressing cross language research; 2) synthesize the methodological recommendations from the literature into a list of criteria that could evaluate how researchers methodologically managed translators and interpreters in their qualitative studies; and 3) test these criteria on published cross-language qualitative studies.

Data sources—A group of 40 purposively selected cross-language qualitative studies found in nursing and health sciences journals.

Review methods—The synthesis of the cross-language methods literature produced 14 criteria to evaluate how qualitative researchers managed the language barrier between themselves and their study participants. To test the criteria, the researcher conducted a summative content analysis framed by discourse analysis techniques of the 40 cross-language studies.

Results—The evaluation showed that only 6 out of 40 studies met all the criteria recommended by the cross-language methods literature for the production of trustworthy results in cross-language qualitative studies. Multiple inconsistencies, reflecting disadvantageous methodological choices by cross-language researchers, appeared in the remaining 33 studies. To name a few, these included rendering the translator or interpreter as an invisible part of the research process, failure to pilot test interview questions in the participant's language, no description of translator or interpreter credentials, failure to acknowledge translation as a limitation of the study, and inappropriate methodological frameworks for cross-language research.

Conclusions—The finding about researchers making the role of the translator or interpreter invisible during the research process supports studies completed by other authors examining this issue. The analysis demonstrated that the criteria produced by this study may provide useful guidelines for evaluating cross-language research and for novice cross-language researchers designing their first studies. Finally, the study also indicates that researchers attempting cross-language studies need to address the methodological issues surrounding language barriers between researchers and participants more systematically.

Address: Allison Squires, PhD, RN, Center for Health Outcomes & Policy Research, University of Pennsylvania School of Nursing, 418 Curie Blvd, Rm. 338R, Philadelphia, PA 19104.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Keywords

Qualitative research; translators; interpreters; translation; research methods; international research

What is already known about the topic?

- Researchers commonly use translators and interpreters to bridge language barriers between themselves and their participants.
- Language barriers between researchers and participants present significant methodological challenges for researchers undertaking cross-language qualitative studies.

What this paper adds

- Synthesizes methodological recommendations from cross-language methods literature;
- Demonstrates the disadvantageous methodological choices made by cross-language qualitative researchers attempting to bridge language barriers between themselves;
- Provides tested criteria for evaluating the trustworthiness of the findings from cross-language qualitative studies.

The forces of globalization augment the need for qualitative research that is linguistically and culturally representative of study participants in order to improve the quality of care provided by health care professionals (Esposito, 2001; Yach, 1992). Temple (2002) first used the term “cross-language research” to describe qualitative studies that use a translator or interpreter at any point during the research process and the term now regularly describes this kind of research.

When a language barrier exists between qualitative researchers and their participants, the research becomes a cross-language qualitative study with unique challenges related to language (Edwards, 1998; Temple, 2002; Temple & Young, 2004). Commonly, researchers employ interpreters or translators to overcome that language barrier. How the researcher uses the services of translators and interpreters in their study can affect the results researchers obtain from participants (Larkin, Derickz de Casterlé, & Schotsmans, 2007; Temple, 2002; Wallin & Alhström, 2006).

“Trustworthiness” is a measure of a qualitative study’s rigor (Lincoln & Guba, 1985). Qualitative researchers evaluating trustworthiness link the trustworthiness of qualitative data to the competence of the researcher orchestrating the study (Lincoln & Guba, 1985; Patton, 2002). Inconsistent or inappropriate use of translators or interpreters can threaten the trustworthiness of cross-language qualitative research and subsequently, the applicability of the translated findings on participant populations (Edwards, 1998). Using that standard with cross-language research, then, how researchers describe the way they use translators in cross-language qualitative research reflects their competence in addressing language as a methods issue.

Several methods articles broaching the issue of cross language research have appeared since the year 2000. All provide salient points about tackling issues related to cross-language research, but no methodological consensus has emerged from them. In light of that lack of consensus, there are several purposes for this paper. First, I review the methods literature addressing the conduct of cross language research in the background section. To create methodological consensus, I then synthesize a list of methodological recommendations derived from the literature on the topic to evaluate how researchers addressed the methodological

challenges found in cross-language qualitative studies. Then, to evaluate the applicability of the criteria, I then test them on published cross-language qualitative studies using summative content analysis techniques.

Background

Put simply, translators and interpreters provide language translation services. Although many use the terms interchangeably, the two roles provide distinct services. When researchers need written documents translated from one language to another, such as interview transcriptions or primary and secondary sources, they employ a translator. If researchers require translation services to conduct an interview or focus group, they employ an interpreter. The interpreter role provides oral translation services during an interaction between a minimum of two people who do not speak the same language (Gee, 1990; Hole, 2007; Larson, 1998). Different qualitative methods also require different roles for translators (Squires, In Press). Thus, researchers who fail to systematically address the methodological issues translators present in a cross-language qualitative research design can decrease the trustworthiness of the data and the overall rigor of the study (Edwards, 1998).

With the translator and interpreter roles distinguished, the remaining literature discusses several methodologically important issues for addressing language barriers between qualitative researchers and their participants. They include maintaining conceptual equivalence, translator credentials, the translator or interpreter's role in the research process, and specific recommendations for different types of qualitative approaches. These four areas provide key strategies for addressing translation issues in qualitative research. The literature review draws from research conducted by experienced cross-language qualitative researchers in the social sciences and recommendations from experts in linguistics who specialize in language translation.

Conceptual Equivalence

Changes to language occur during the process of translation. When a translator performs a translation, they translate not only the literal meaning of the word, but also how the word relates conceptually in the context (Gee, 1990). The context may be the sentence itself, or the place where the person speaks it.

"Conceptual equivalence" means that a translator provides a technically and conceptually accurate translated communication of a concept spoken by the study's participant (Jandt, 2003). Therefore, when a poor translation occurs, the researcher may lose the conceptual equivalence of or find the meanings of the participants' words altered because of how the translator performed the translation (Gee, 1990; Fredrickson, Rivas Acuña, & Whetsell, 2005; Temple & Young, 2004).

In health care language, however, many times a word or phrase to describe a concept does not exist in another language (Fredrickson, Rivas Acuña, & Whetsell, 2005). This is especially true in places where, for example, the nursing profession is not as well developed. For translators in those situations, providing a conceptually accurate translation involves translating the concept conveyed in the sentence, the incorporation of subject matter knowledge, and the integration of their local contextual knowledge into the translation process.

For example in American English, when referring to different types of hospitals, United States (U.S.) health care providers will often reference their institution's trauma certification in a conversation. A researcher might say something like "the patient was admitted to a Level 1 trauma center." If the translator translated "Level 1 trauma center" from American English (AE) to Latin American Spanish (LAS), he or she would have to know that the conceptually

equivalent term in LAS is “*un hospital del tercer nivel*.” That literally back translates into “a hospital of the third level.” A good translator who is unfamiliar with medical terminology might write it as a “level three hospital.” A poor translator would translate the phrase literally. In AE, however, the correct translation is “Level 1 trauma center.”

The example above illustrates the importance of conceptual equivalence in translation with a relatively simple term, thus illustrating how translation processes can affect qualitative data. Imagine, then, what could happen to qualitative data when more complex concepts---like self-care, role enactment, or work environment---are poorly translated. Maintaining the conceptual equivalence of what a participant said during an interview is, therefore, the most important part of mediating the methodological issues that arise from using translators (Larkin, Derickz de Casterlé, & Schotsmans, 2007).

Translator and Interpreter Credentials

The credentials of a person providing translation services are important. Credentials and experience will affect the quality of translations produced by the translator and become especially important during the qualitative coding and data analysis processes (Adamson & Donovan, 2002; Edwards, 1998; Twinn, 1997). Poorly translated concepts or phrases will change what themes emerge from the analysis and may not reflect what the participant actually said. This threatens, for example, the credibility and dependability of the cross-language study and form part of the study’s limitations.

For research purposes, experts recommend that translators or interpreters have a minimum of sociolinguistic language competence when providing translation services (Danesi, 1996; Gee, 1990; Savignon, 1997). When translators or interpreters have this level of language competence, they demonstrate the ability to communicate between languages using complex sentence structures, a high level of vocabulary, and the ability to describe concepts or words when they do not know the actual word or phrase (Danesi, 1996; Savignon, 1997). With this level of language competence, translated data is less likely to have errors related to translation (Jandt, 2003).

Ideally then, translators or interpreters participating in a cross-language study possess certification from a professional translator’s association, like the American Translators Association. These credentialed individuals have had their language competency verified through a combination of educational and experiential criteria (ATA, 2008; Edwards, 1998). When researchers cannot employ a certified translator, a person who meets the standards described by the translator’s association is the next best option.

Role of the Translator or Interpreter During the Research Process

After credentials, the role of the translator or interpreter forms an important component of the research process. Based on the language competencies of the researchers and translators, the primary investigator or research team determines the best roles for each person contributing to the study (Esposito, 2001, 2005; Hole, 2007; Irvine, Lloyd, Allsup, Kakehasi, Ogi, & Okuyama, 2007). The role of the translator or interpreter affects data collection, results, costs of research, and degree of bias in the results.

An important influence on translators’ roles in research is the researcher’s theoretical or philosophical approach in the study (Adamson & Donovan, 2002; Kapborg & Berterö, 2002; Temple & Young, 2004). For example, a positivist researcher expects only a technically accurate translation (Temple, 2002). In contrast, a social-constructionist or feminist researcher accounts for the effects of translator or interpreter identity on translation services (Temple, 2002). This perspective integrates cultural interpretation of the participant’s statements into

the data analysis process (Adamson & Donovan, 2002; Hole, 2007). The translator, therefore, becomes a producer of research data who shapes the analysis through their identity and experiences (Adamson & Donovan, 2002; Temple, 2002; Temple & Young, 2004).

Considerations for Different Qualitative Approaches

Most qualitative research approaches are amenable to cross-language designs. Phenomenological studies that involve translating participant data, however, are not (Larkin, Derickz de Casterlé, & Schotsmans, 2007; Squires, In Press; Temple, 2002; Twinn, 1997). Because phenomenological studies require an intense, exact focus on how participants use language to describe their experiences and language is a part of the identity of the person experiencing the phenomenon, translation disrupts the fluid process from inception through dissemination of studying the participants' use of language to describe the experience of the phenomenon. As previously indicated in the section about conceptual equivalence, the process of translation alters the original use and, sometimes, the structure of the participant's use of language. The text may change enough during the translation process that the investigator will not adequately capture the essence of the phenomenon in the translated language. Therefore, phenomenologic studies can only take place in the language of the participant and cannot involve use interpreters or translators during data collection or analysis. Narrative analysis, on the other hand, can capture the experiences of participants with fewer methodological issues related to translation.

In the case of international historical or case study research, the investigators themselves require a high level of language competence to complete their studies. They perform the majority of translation when using these methods and sometimes may opt not to use a translator. These two methods also require the investigator to have a high-level sociocultural competence and significant background knowledge about the country or place of study. To ensure credibility and confirmability of data and findings translated by an investigator, the literature recommends an independent review to validate the technical and conceptual accuracy of the translation, thus enhancing the study's rigor (Squires, In Press).

A Synthesis of the Methodological Recommendations

Table 1 synthesizes the methodological recommendations described in this section as 14 criteria to evaluate cross-language qualitative research. A multilingual sociolinguist reviewed the criteria in Table 1 and found them acceptable for evaluating translator and interpreter use in qualitative research studies.

A list of criteria with no testing, however, is not useful. The following section describes how the criteria were tested against already published cross-language qualitative studies.

Methods

Discourse analysis and deconstructionism examine and deconstruct the use of language (Jandt, 2003; Starks & Trinidad, 2007). This theoretical grounding provides the framework for analyzing how researchers addressed the methodological challenges of cross-language qualitative research. Content analysis of documents is a form of inductive analysis shaped by a philosophical perspective that researchers use to identify "patterns, themes, and categories" (Miller & Alvarado, 2005, p. 351) present in a purposively selected group of documents. Under this approach, researchers can use any published document as a potential data source (Miller & Alvarado, 2005). Summative content analysis is a specific kind of content analysis that uses predetermined codes or criteria to evaluate a specific portion of a document (Hsieh & Shannon, 2005). It allows categorization and frequency counts to occur during the

analysis. The synthesized recommendations from the literature are the criteria used to guide the summative content analysis.

The analysis proceeded under the assumption that researchers conducting cross-language qualitative research viewed translators, their roles, and translation processes potential effects on data as methodological factors in their study. Therefore, using the criteria in Table 1, this analysis focused on examining the methods section of purposively selected, cross-language qualitative studies published in the health sciences. The method section received focus because translation is a methods issue.

To select articles for the analysis, a combined keyword search in Cumulative Index to Nursing & Allied Health Literature (CINAHL) and MEDLINE using the terms “qualitative research,” “interpreter/s,” “interpreting,” “translator/s,” “translation,” and “translating.” Terms like “language barrier,” “language,” “international,” “international,” “linguistic,” and “native tongue” were not used because they had either too many cross references, different conceptual meanings between databases, or had different categorizations in each database. For example, “translation” in MEDLINE created thousands of hits related to gene therapy translation or other hard science concepts in research. The search was limited to published studies between the years 2000 and 2007. The 2000 date limitation was chosen because qualitative research has gained more acceptance in recent years, with more qualitative studies published after that time. Availability in English or Spanish and electronically availability also served as limiting criteria in the search.

Inclusion criteria for the selection process were broad, requiring only that the researchers conducted a qualitative study that involved the use of a translator or interpreter to collect or analyze qualitative data in the study. Upon the final selection of the articles, using the criteria in Table 1, discourse analysis techniques guided the summative content analysis of the methods section. At times, the “results” section of an article provided answers meeting the criteria in Table 1.

To manage the summative content analysis process, a simple table recorded the findings with response options as “yes,” “partially,” or “no.” A “Yes” indicated the author(s) fully met the criteria; “partially” indicated that the criteria were met in part, but not enough to achieve a “yes”; and “No” meant that the author(s) failed to meet the criteria at all. The table also helped track detailed notes about the qualitative approaches of each article, the language(s) used in the study, participant country or regional origins, and if pilot testing of the interview questions occurred.

Findings

The initial search produced 73 qualitative studies that involved the use of an interpreter or translator in some capacity during the research process. Further review of the documents reduced the total articles to 40 for the content analysis. Studies included in the analysis represent qualitative research conducted in every region of the world, in thirty countries, and in thirty-five languages. As a by-product of the selected search engines, studies by nursing researchers represented the majority of articles analyzed for the study.

The significant finding of the analysis is that based on the criteria in Table 1 and contrary to our main assumption for this analysis, researchers conducting cross-language qualitative studies do not consistently account for the effects of translators on qualitative data. The analysis of the 40 cross-language qualitative studies revealed a series of advantageous and disadvantageous methodological choices by qualitative researchers trying to mediate the language barrier between themselves and their participants. Only 6 out of 40 articles successfully met the recommendations described in Table 1. These studies all included

information about the researcher's origins and language qualifications, pilot tested the interview guide, described the identity and role of the translator, and described in detail where translation services occurred during the study. Table 2 lists the studies and highlights their methodological strengths.

Table 3 describes both the advantageous and disadvantageous methods choices researchers made when conducting their studies. The remainder of this section, however, focuses on the disadvantageous choices made by researchers so that others can learn from these choices.

The disadvantageous choices made by researchers in relation to language barrier management between themselves and their participants often appear as methodological inconsistencies in the studies. At times, these inconsistencies do not meet basic research requirements. For example, authors rarely acknowledged that researcher-participant language barriers were a limitation of their study that might have affected the analysis and interpretation of the results. Thirty-four of the 40 studies contained no acknowledgement of this limitation.

Other significant common features emerged. Only 7 studies stated that the researchers pilot tested their interview guides in the language(s) of their participants and just one study employed a professional translator. Over half of the authors (22) described the role of the translator as a "bilingual research assistant," but they rarely provided information about the translator's credentials. Nine did not mention the translator's role at all nor where during the study the researcher used translators. Leaving out the type of translation services—oral or written—was also common for researchers.

Another trend that emerged from the analysis came from when it became apparent that many researchers did not provide a reference citing researcher-participant language barriers as a methodological issue. This was even true of researchers working in teams where one person spoke the language of the participants. Upon closer examination, only 8 articles analyzed for this study had a reference that addressed the methodological issues related to using translators in qualitative research.

Researchers also inconsistently reported when they used translator services during the study. Those conducting multi-language qualitative studies (more than 3 languages) also frequently failed to mention in which language coding and analysis took place. Another common trend was that researchers often provided no explanation about why researchers translated data for the study in the first place. This occurred most often when multiple languages were involved in the analysis and the researchers spoke the same language as the participants.

The last significant trend was that 5 studies described as phenomenological involved the use of interpreters or translators during data collection and analysis. As explained in the background section, translation alters language use and disrupts the process of conducting phenomenologic research. Consequently, the results of these studies may not meet credibility standards for qualitative research.

Discussion

The findings from this analysis support those of other studies that found researchers often render the translator's role and effects on data as invisible (Temple, 2002; Temple & Young, 2004; Wallin & Ahlström, 2006). They also suggest that how researchers present the use of translators in disseminated results may reflect their overall competence with handling language as a methods issue in cross-language qualitative research. Moreover, the findings illustrate several important methodological discussion points related to the timing of translation, dissemination of results, and reader assumptions.

By indicating when the translation activity took place in a study, the reader obtains a clearer picture of the translator's role and potential influence on data. The timing of translation also becomes important when research team members do not all speak the same language or dialect. In addition, a reviewer might ask why the researchers translated the data at a certain point in a study. Was it to facilitate collaboration between researchers from different countries? Was it because there was one common language between researchers and participants? Or, did the researchers intend to target an English language journal, hence opting to conduct the analysis in the same language as the publication? If so, perhaps such researchers should carefully consider whether it is necessary to carry out translation at that stage of the research or whether it would be preferable to conduct the research in the language of the participants and translate the resulting report.

Answering these questions helps to clarify important methodological choices made by researchers and reduces erroneous assumptions on the part of the reader. Questions like these and their answers reduce the likelihood that a reader may, unconsciously, make assumptions about the identity of the researcher(s) and translator(s) involved in the study. The assumptions may come from a monolingual reader thinking that anyone willing to undertake a cross-language qualitative study must have factored in all of the methodological considerations provided in this article. Yet when a qualitative study involves more than one language, it is inappropriate for readers or reviewers to have to make assumptions about cross-language researchers' identities and language competence, or that of their translator(s). Therefore, from a methodological perspective, the results of this study suggest that researchers can improve the trustworthiness of their study by paying close attention to how they describe the identity and role of translators and researchers in the study.

For multi-language studies, the study's rigor improves if the investigators explain why they chose one language for the analysis in place of another. Explaining this choice is critical if the analysis did not take place in the same language as that of the participants. It clarifies if the authors made the decision for functional or other reasons.

Finally, when disseminating results, the findings suggest that researchers include a detailed description of how the researcher used the translators during the data collection process in the methods section. Researchers conducting cross-language research cannot forget that language is a methodological challenge when conducting a study with participants who do not speak the same language as the researcher. Even with the space considerations of many journals, the use of translators in a study warrants a higher level of detail in publication because it reflects researcher competence with handling the issue of language barriers between themselves and their participants, and consequently, the trustworthiness of the data.

The methodological inconsistencies related to language barrier management by researchers highlight the need for a new kind of evaluation of trustworthiness for cross-language qualitative research. The term "cross-language trustworthiness" may serve as an adequate descriptor for evaluating the quality of these studies. Cross-language trustworthiness shows that the researcher systematically accounted for factors that would compromise the credibility, transferability, dependability, and confirmability of translated data. Consequently, researchers then demonstrate a high level of competence in managing this methodological challenge and minimizing the risk for interpretive errors related to translation.

Limitations

The searching strategy for the summative content analysis did bias the article selection process toward nursing researchers and might have limited the number and kinds of studies used in the analysis. Even though many health sciences journals cross-list in social science databases, the search process may have overlooked some cross-language studies in the social sciences.

In addition, both MEDLINE and CINAHL code search terms for translators, interpreters, and qualitative research in different ways; therefore, some articles may have been missed that could have been included in the analysis. How publishers and authors provided keywords for their articles and the limitations of my library's access to some journals also may have reduced the number of studies that could have been included in the analysis.

As a result, the initial criteria developed from this analysis may not address all issues arising from the conduct of cross-language research. The quality of summative content analysis is also only as good as the criteria used to structure the process. While the results produced here provided some convincing findings, further testing of the cross-language trustworthiness criteria will help solidify their accuracy when evaluating cross-language qualitative studies.

Conclusion

Overall, this article highlighted the importance of systematically addressing language barriers when using qualitative methods. The strategies highlighted in the analysis can help cross-language researchers produce qualitative findings truly reflective of the participants, despite the presence of a language barrier. The findings should also encourage cross-language researchers to improve explanations about their methodological choices related to translator roles in research in disseminated results.

As globalization increases the possibilities for collaborative research that improves health services delivery by eliminating many geographic and technical barriers related to language differences, opportunities for cross-language qualitative studies abound. The recommendations described here enhance the possibility for new or expanded international collaborations that can help build healthcare and research capacity in under-resourced countries. In the end, it is the responsibility of researchers, translators, reviewers, and editors alike to ensure the appropriate translation of participant voices in cross-language qualitative research.

Acknowledgments

The author would like to acknowledge support for her post-doctoral fellowship from the National Institute for Nursing Research, NIH award "Advanced Training in Nursing Outcomes Research" (T32-NR-007104, Linda Aiken, PI). She would also like to thank Mercia Flannery, PhD and Sarah Kagan, PhD, RN, FAAN at the University of Pennsylvania for their feedback in the development of this manuscript.

References

- *Indicates the article was included in the critical review of cross-language studies.
- Adamson J, Donovan JL. Research in black and white. *Qualitative Health Research* 2002;12 (6):816–825. [PubMed: 12109726]
- *Alves Cardoso AH, Gomes Rodrigues K, Bachion MM. Perceptions of persons with severe or profound deafness about the communication process during health care. *Revista Latinoamericana de Enfermeragem* 2006;14 (4):553–60.
- American Translators Association [ATA]. Minimum qualifications for translator certification. Jun 19. 2008 Downloaded from <http://www.atanet.org/certification/index.php>
- *Arnaert A, Schaack G. Cultural awareness of Inuit patients' experiences with emergency nursing care. *Accident and Emergency Nursing* 2006;14:97–103. [PubMed: 16554157]
- *Aroian KJ, Khatutsky G, Tran TV, Balsam AL. Health and social service utilization among elderly immigrants from the former Soviet Union. *Journal of Nursing Scholarship* 2001;33 (3):265–271. [PubMed: 11552554]
- *Brandi CL, Naito A. Hospital nurse administrators in Japan: A feminist dimensional analysis. *International Nursing Review* 2006;53:59–65. [PubMed: 16430762]

- *Callister LC, Getmaneko N, Garvrish N, Eugenevna MO, Vladimirova ZN, Lassetter J, Turkina N. Giving birth: The voices of Russian women. *Maternal Child Nursing* 2007;32 (1):18–24.
- *Chan CWH, Molassiotis A, Yam BMC, Chan SJ, Lam CSW. Traveling through the cancer trajectory: Social support perceived by women with gynecologic cancer in Hong Kong. *Cancer Nursing* 2001;24 (5):387–394. [PubMed: 11605709]
- *Chang KH, Horrocks S. Lived experiences of family caregivers of mentally ill relatives. *Journal of Advanced Nursing* 2006;53 (4):435–443. [PubMed: 16448486]
- *Chien W, Ip W. Perceptions of role functions of psychiatric nurse specialists. *Western Journal of Nursing Research* 2001;23 (5):536–554. [PubMed: 11482056]
- *Coverston CR, Harmon KR, Keller ER, Malner AA. A comparison of Guatemalan and USA nurses' attitudes towards nursing. *International Nursing Review* 2004;51 (2):94–103. [PubMed: 15102114]
- Danesi M. Teen talk: What are the implications for second-language teaching? *Mosaic* 1996;3 (4):1–10.
- *Davies MM, Bath PA. The maternity information concerns of Somali women in the United Kingdom. *Journal of Advanced Nursing* 2001;36 (2):237–45. [PubMed: 11580798]
- *Dzokoto VA, Okazaki S. Happiness in the eye and the heart: Somatic referencing in West African emotion lexica. *Journal of Black Psychology* 2006;32 (2):117–140.
- Edwards R. A critical examination of the use of interpreters in the qualitative research process. *Journal of Ethnic and Migration Studies* 1998;24:197–208.
- Esposito N. From meaning to meaning: The influence of translation techniques on non-English focus group research. *Qualitative Health Research* 2001;11(4):568–79. [PubMed: 11521612]
- Esposito N. Agenda dissonance: Immigrant Hispanic women's and providers' assumptions and expectations for menopause healthcare. *Clinical Nursing Research* 2005;14 (1):32–56. [PubMed: 15604227]
- Fredrickson K, Rivas Acuña V, Whetsell M. Cross-cultural analysis for conceptual understanding: English and Spanish perspectives. *Nursing Science Quarterly* 2005;18 (4):286–292. [PubMed: 16210740]
- *Garcia CM, Duckett LJ, Saewye EM, Bearinger LH. Perceptions of health among immigrant Latino adolescents from Mexico. *Journal of Holistic Nursing* 2007;25(2):81–91. [PubMed: 17515562]
- Gee, JP. *Social linguistics and literacies: ideology in discourse*. New York: Falmer Press; 1990.
- *Gerrish K. The nature and effect of communication difficulties arising from interactions between district nurses and South Asian patients and their carers. *Journal of Advanced Nursing* 2001;33 (5):566–74. [PubMed: 11298192]
- *de Graaf FM, Francke AL. Home care for terminally ill Turks and Moroccans and their families in the Netherlands: Carers experiences and factors influencing ease of access and use of services. *International Journal of Nursing Studies* 2003;40:797–805. [PubMed: 14568362]
- *Grewal S, Bottorf JL, Hilton BA. The influence of family on immigrant South Asian women's health. *Journal of Family Nursing* 2005;11 (3):242–263. [PubMed: 16287827]
- *Harrison L, Scarinci I. Child health needs of rural Alabama Latino families. *Journal of Community Health Nursing* 2007;24 (1):31–47. [PubMed: 17266404]
- *Heuer L, Lausch C. Living with diabetes: Perceptions of Hispanic migrant farmworkers. *Journal of Community Health Nursing* 2006;23 (1):49–64. [PubMed: 16445364]
- Hole R. Working between languages and cultures: Issues of representation, voice, and authority intensified. *Qualitative Inquiry* 2007;13:696–710.
- Hsieh H, Shannon SE. Three approaches to qualitative content analysis. *Qualitative Health Research* 2005;15:1277–1288. [PubMed: 16204405]
- *Hwang EJ, Kim YH, Jun SS. Lived experience of Korean women suffering from rheumatoid arthritis: A phenomenological approach. *International Journal of Nursing Studies* 2004;41 (3):239–46. [PubMed: 14967180]
- Irvine FE, Lloyd D, Jones PR, Allsup DM, Kakehashi C, Ogi A, Okuyama M. Lost in translation? Undertaking transcultural qualitative research. *Nurse Researcher* 2007;14 (3):46–58. [PubMed: 17494468]
- Jandt, F. *An introduction to intercultural communication: identities in a global community*. Sage; Thousand Oaks, CA: 2003.

- *Kapborg I. The nursing education programme in Lithuania: Voices of student nurses. *Journal of Advanced Nursing* 2000;32 (4):857–863. [PubMed: 11095223]
- Kapborg I, Berterö C. Using an interpreter in qualitative interviews: Does it threaten validity? *Nursing Inquiry* 2002;9 (1):52–56. [PubMed: 12164715]
- *Kartchner R, Callister LC. Giving birth: Voices of Chinese women. *Journal of Holistic Nursing* 2003;21 (2):100–116. [PubMed: 12794955]
- *Lam LW, Chang AM, Morrissey J. Parents' experiences of participation in the care of hospitalised children: A qualitative study. *International Journal of Nursing Studies* 2006;43 (5):535–45. [PubMed: 16143333]
- Lange JW. Testing equivalence of Spanish and English versions: The Lamonica-Oberst (revised) patient satisfaction with nursing care scale. *Research in Nursing & Health* 2002;25 (6):438–51. [PubMed: 12424781]
- Larkin PJ, Dierckx de Casterlé B, Schotsmans P. Multilingual translation issues in qualitative research: Reflections on a metaphorical process. *Qualitative Health Research* 2007;17:468–476. [PubMed: 17416700]
- Larson, ML. Meaning-based translation: A guide to cross-language equivalence. Vol. 2. New York: University Press of America; 1998.
- *Lee EE, Tripp-Reimer T, Miller AM, Sadler GA, Lee S. Korean-American women's beliefs about breast and cervical cancer and associated symbolic meanings. *Oncology Nursing Forum* 2007;34 (3):713–20. [PubMed: 17573330]
- Lincoln, Y.; Guba, E. *Naturalistic inquiry*. Sage; New York: 1985.
- *Luyben AG, Fleming VEM. Women's needs from antenatal care in three European countries. *Midwifery* 2005;21 (3):212–23. [PubMed: 15967548]
- *McCarthy P, Chammas G, Wilimas J, Alaoui FM, Harif M. Managing children's cancer pain in Morocco. *Journal of Nursing Scholarship* 2004;36 (1):11–15. [PubMed: 15098413]
- *McGuire S, Georges J. Undocumentedness and liminality as health variables. *Advances in Nursing Science* 2003;26 (3):185–95. [PubMed: 12945654]
- *Merrell J, Kinsella F, Murphy F, Philpin S, Ali A. Support needs of carers of dependent adults from a Bangladeshi community. *Journal of Advanced Nursing* 2005;51 (6):549–57. [PubMed: 16129005]
- Mill JE, Ogilvie LD. Establishing methodological rigour in international qualitative nursing research: A case study from Ghana. *Journal of Advanced Nursing* 2003;41 (1):80–7. [PubMed: 12519291]
- Miller FA, Alvarado K. Incorporating documents into qualitative research. *Journal of Nursing Scholarship* 2005;37 (4):348–353. [PubMed: 16396408]
- *Mok E, Chan F, Chan V, Yeung E. Family experience caring for terminally ill patients with cancer in Hong Kong. *Cancer Nursing* 2003;26(4):267–75. [PubMed: 12886117]
- Patton, MQ. *Qualitative research and evaluation methods*. Vol. 3. Sage; Thousand Oaks, CA: 2002.
- *Pavlish C. Action responses of Congolese refugee women. *Journal of Nursing Scholarship* 2005;37 (1):10–17. [PubMed: 15813581]
- *Perry J, Lynam MJ, Anderson JM. Resisting vulnerability: The experiences of families who have kin in hospital -- a feminist ethnography. *International Journal of Nursing Studies* 2006;43 (2):173–84. [PubMed: 15923006]
- *Poss JE, Jezewski MA, Gonzalez Stuart A. Home remedies for type 2 diabetes used by Mexican-Americans in El Paso, Texas. *Clinical Nursing Research* 2003;12 (4):304–323. [PubMed: 14620689]
- Savignon, S. *Communicative competence: theory and classroom practice*. Vol. 2. New York, NY: McGraw-Hill; 1997.
- *Seloilwe ES. Experiences and demands of families with mentally ill people at home in Botswana. *Journal of Nursing Scholarship* 2006;38 (3):262–68. [PubMed: 17044344]
- *Shaffer CF. Factors influencing the access to prenatal care by Hispanic pregnant women. *Journal of the American Academy of Nurse Practitioners* 2002;14 (2):93–96. [PubMed: 11892542]
- *Sibley LM, Blum LS, Kalim N, Hruschka D, Edmonds JK, Koblinsky M. Women's descriptions of post-partum health problems: preliminary findings from MATLAB, Bangladesh. *Journal of Midwifery & Women's Health* 2007;52 (4):351–60.
- Squires, A. *International Nursing Review*. Language barriers and qualitative research. In Press

- Starks H, Trinidad SB. Choose your method: A comparison of phenomenology, discourse analysis, and grounded theory. *Qualitative Health Research* 2007;17 (10):1372–1380. [PubMed: 18000076]
- Temple B. Crossed wires: Interpreters, translators, and bilingual workers in cross-language research. *Qualitative Health Research* 2002;12 (6):844–54. [PubMed: 12109728]
- Temple B, Young A. Qualitative research and translation dilemmas. *Qualitative Research* 2004;4 (2): 161–78.
- Twinn S. An exploratory study examining the influence of translation on the validity and reliability of qualitative data in nursing research. *Journal of Advanced Nursing* 1997;26:418–423. [PubMed: 9292378]
- *Valdez M. A metaphor for HIV-positive Mexican and Puerto Rican women. *Western Journal of Nursing Research* 2001;23 (5):517–535. [PubMed: 11482055]
- *Vellone E, Sansoni J, Cohen MZ. The experiences of Italians caring for family members with alzheimer's disease. *Journal of Nursing Scholarship* 2002;34 (4):323–29. [PubMed: 12501735]
- Wallin A, Ahlström G. Cross-cultural interview studies using interpreters: Systematic literature review. *Journal of Advanced Nursing* 2006;55 (6):723–735. [PubMed: 16925621]
- *White PM. Crossing the river: Khmer women's perceptions of pregnancy and postpartum. *Journal of Midwifery and Women's Health* 2002;47 (4):239–46.
- *Woo H, Twinn S. Health needs of Hong Kong Chinese pregnant adolescents. *Journal of Advanced Nursing* 2004;45 (6):595–602. [PubMed: 15012637]
- *Xu W, Towers AD, Li P, Collet JP. Traditional Chinese medicine in cancer care: Perspectives and experiences of patients and professionals in China. *European Journal of Cancer Care* 2006;15:397–403. [PubMed: 16968323]
- Yach D. The use and value of qualitative methods in health research in developing countries. *Social Science & Medicine* 1992;35 (4):603–612. [PubMed: 1519114]
- *Yang C, Gau M, Shiau S, Hu W, Shih F. Professional career development for male nurses. *Journal of Advanced Nursing* 2004;48 (6):642–50. [PubMed: 15548255]
- *Yin LK, Twinn S. The effect of childhood cancer on Hong Kong Chinese families at different stages of the disease. *Cancer Nursing* 2004;27 (1):17–24. [PubMed: 15108948]

Table 1**Methodological Recommendations for Cross-Language Qualitative Research**

To evaluate if a study used the methodological recommendations appropriately to maximize the trustworthiness of translated qualitative data, answer “yes,” “partially,” or “no” to the statements.

Conceptual Equivalence

1. Provided a rationale for why the analysis occurred in the chosen language, especially if it was not the same language as the participants.
2. Developed a translation lexicon for multi-language studies to ensure conceptual equivalence.
3. Had the translation validated by a qualified bilingual individual not directly involved with data collection or the initial translation.

Translator Credentials

4. Briefly described the translator's qualifications or previous experience with translation.
5. Described the researchers level of language competence.
6. Described the researchers or translators identity in contrast to that of the participants.

Translator Role

7. Described the translator's role in the study.
8. Described at what point(s) during the research process they used translation services.
9. Identified who conducted the analysis and in what language it took place.
10. Provided a rationale for using multiple translators when the study took place in only one language.

Methods

11. Selected the appropriate research method for the cross-language qualitative study.
 12. Pilot tested the translated interview guide prior to conducting the study.
 13. Indicated the country of origin of all participants in the study, even if they came from linguistically similar regions (i.e. South America).
 14. Stated in the limitations section or other appropriate location that translation or use of translators may have affected the results.
-

Table 2

Description of methodological strengths of six studies meeting all methodological recommendations

Author(s) & Year	Country of Study/ Country of Origin of Subjects	Participant Language	Qualitative Data Collection & Analysis Approach	Methodological Strengths of Studies
Kapborg, 2000	Lithuania	Lithuanian	General thematic analysis	<ul style="list-style-type: none"> Indicated that English was common language between interpreter and researcher. Good detail about how translation of interviews was conducted during interview process. Used same interpreter who conducted interviews to complete transcriptions.
Lee, Tripp-Reimer, Miller, Sadler, & Lee, 2007	Korea	Korean	Descriptive, qualitative content analysis	<ul style="list-style-type: none"> Used a professional translator for translation of interviews. First author validated translation.
Merrell, Kinsella, Murphy, Philpin, & Ali, 2003	Bangladesh	Bengali	Qualitative exploratory study with focused interviews using thematic analysis techniques	<ul style="list-style-type: none"> Had independent translator translate a small number of interviews to validate translation completed within the study.
Pavlish, 2005	Democratic Republic of Congo	Kinyar-wanda	Narrative inquiry framed by transcultural interpretive qualitative analysis using interview notes, field notes, and participant observation.	<ul style="list-style-type: none"> Indicated translated data was a limitation of the study. Author acknowledged how own identity may have affected responses and analysis process.
Woo & Twinn, 2004	Hong Kong, China	Cantonese	Exploratory qualitative study using semi-structured interviews	<ul style="list-style-type: none"> Researcher translated the data for coding and indicated coding was completed in English. Independent source validated translation.
Yin & Twinn, 2004	Hong Kong, China	Cantonese	Ethnography with interviews and field notes.	<ul style="list-style-type: none"> Authors used dedicated translator and conducted interviews themselves. Framed translation methods with references to methods articles.

Table 3

Advantageous and Disadvantageous Methodological Choices Found in Cross-Language Studies*

Advantageous	Disadvantageous
Conceptual Equivalence	
<ul style="list-style-type: none"> • Translation validated by a bilingual individual not related to the study (6) • Researchers themselves validated translation (4) • Conducted analysis in language of participants and reserved translation into English for significant themes and phrases (2) • Validated translation of consent form through back translation (2) 	<ul style="list-style-type: none"> • When multiple languages or dialects were used in the study, authors took no measures to ensure conceptual equivalence between them (6) • Used multiple translators to complete translation, thus increasing threats to conceptual equivalence (4). • Did not account for regional linguistic variations in expression of themes or words when conducting the analysis. • Reductionistic approach (summarizing findings in researcher's language) to facilitate translation removes context and content from data, therefore threatening the trustworthiness of the results.
Translator/Researcher Credentials	
<ul style="list-style-type: none"> • Used a doctorally prepared research assistant for all translations. • Used a professional translator for translation of interviews. • Used translator known and trusted by community. 	<ul style="list-style-type: none"> • Translated by a research assistant or other individual but did not describe translator qualifications or experience with translation (9). • Did not indicate if author(s) were fluent in language of participants, but stated that they reviewed the transcripts during coding process (5). • Researcher stated she met translator on bus, did not indicate how she verified translator qualifications. • Used bachelor's level students for translation with no verification of credentials.
The Translator's Role or Researcher Language Competence	
<ul style="list-style-type: none"> • Researchers conducted all translations (3) • Used single, dedicated translator for the entire translation process (2). • Used same interpreter who conducted interviews to complete transcriptions. • Described extensive training process of local team members the authors employed to ensure rigor and trustworthiness of data and methods. • Authors used dedicated translator and conducted interviews themselves. • First author conducted all interviews and translated them so the research team could participate in the analysis. • Detailed description of researcher's linguistic qualifications. 	<ul style="list-style-type: none"> • Did not have an independent source validate the translations when appropriate (5). • Did not describe who conducted the interviews (4) • Did not acknowledge how translator/researcher identity could affect responses from participants (4). • Used multiple research assistants or translators to conduct translation (3). • No clear description of who conducted the analysis or if the translator participated in the analysis process. • Indicated that an experienced researcher audited data and data collection process, but did not indicate if that researcher spoke the language of the participants. • Did not indicate who verified accuracy of transcription and translation. • Unclear if PI conducted interviews separately or in concert with translators. • Did not indicate if same interpreter used for interviews completed translation of transcripts. • Indicated that 3 nurses were recruited as translators to compensate for language barrier, but minimized their other roles in the study. • Stated one of the authors conducted the participant interviews in the primary language, but unclear who completed the translation and transcription process.
Methods	
<ul style="list-style-type: none"> • Extensive description of interview guide translation process (2) • Described, in-depth, the sociolinguistic ethnographic techniques used for translation from the two source languages into English. • Indicated that English was common language between interpreter and researcher as rationale for English translation. • Good detail about how translation of interviews was conducted during interview process. • Pilot tested interview guide. 	<p><i>General Points</i></p> <ul style="list-style-type: none"> • Used phenomenology as approach (8) • No qualitative or cross-language methods articles cited in study (4). • Back translated interviews (2) • Did not acknowledge linguistic issues in limitations section or statement. • Focus group remarks not fully translated, only summarized for researcher. • Interview guide not pilot tested in any of the dialects used by participants in the study. • Did not indicate if interviews were translated to the common language between participants and researcher.

Advantageous	Disadvantageous
<ul style="list-style-type: none"> • Coding took place in language of participants. • Provided rationale for translating interviews into English. • Researcher translated the data for coding and indicated coding was completed in English. • Framed translation methods with references to methods articles. 	<ul style="list-style-type: none"> • Participant interviews were orally translated into English via audiotape before written transcription.
<i>Limitations</i>	<i>Participant Linguistic Identity</i>
<ul style="list-style-type: none"> • Indicated translated data was a limitation of the study (2) • Author acknowledged how own identity may have affected responses and analysis process (2) • Acknowledged problem with use of multiple interpreters in limitations section; • Even though data analysis occurred in two languages, author acknowledged that conceptual equivalence issues occurred during analysis and translation processes; • Acknowledged that translation can threaten trustworthiness of results. 	<ul style="list-style-type: none"> • Did not indicate all country or ethnic origins of participants from a linguistically similar region, thus generalizing the linguistic cultural identity of the participants (4). • Did not specify which dialect was used by participants (2). • Author asked participants what their country of origin was during the interview but did not report it in the results.
	<i>Rationale for Linguistic Choices</i>
	<ul style="list-style-type: none"> • Did not provide rationale for translating data into English at any point in the study (9). • Use of multiple languages to interview subjects creates problems with conceptual congruency during translation and analysis (4). • Did not specify why one language was the language of analysis when working with multiple dialects of a major language. • Provided no reason why one language was chosen to conduct the study even though the participants spoke three languages on average. • Data collected in more than one language and no rationale for this methodological choice provided. • Did not describe how they accounted for “slang” differences between regions of same language.
	<i>Data Collection</i>
	<ul style="list-style-type: none"> • Authors describe interviews as conducted “mostly” in the language of the participants, with some English used (4). • No methodological description of data collection process. • Did not indicate if field notes about physical expressions of participants included in analysis. • No mechanism to structure note taking by data collectors in participant or researcher’s language.
	<i>Coding Process & Data Analysis</i>
	<ul style="list-style-type: none"> • Did not indicate in which language the coding process took place (9) • Coding process affected by lack of conceptual equivalence of some terms or themes expressed by participants (2) • Did not record interviews with participants, relied on notes taken by nursing students conducting the interviews.

* Numbers in parentheses next to the statements indicate how many times this happened during the analysis. If the statement does not have a number next to it, then it only happened in one study.