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Translating Open-Ended Questions in Cross-Cultural Qualitative Research: A Comprehensive Framework

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Abstract

Introduction: Globalization has increased the importance of multicultural research to address health disparities and improve healthcare outcomes for underrepresented communities. The International Nursing Network for HIV Research (The Network) serves as a platform for researchers to collaborate on cross-cultural and cross-national HIV studies. This article discusses the Network's approach to overcoming barriers in multicultural and multinational research in a qualitative context. **Methods:** The network created a protocol to guide decision-making throughout the translation process of qualitative data collected from participants in their native languages. The protocol includes aspects of why, when, what, who, how, where, and by what means the translation is completed. **Results:** The protocol has allowed researchers to enhance the validity, reliability, and cultural sensitivity of translation process, ensuring the clarity and impact of their research findings. **Discussion:** Rigorous translation practices promote cross-cultural understanding and respect for participants' perspectives, fostering global collaborations and knowledge exchange.

Keywords

translation, qualitative, multicultural, language, cross-cultural

Introduction

Multinational and multicultural research has become essential to addressing global health disparities and has crucial implications for fostering equitable and patient-centered services. By understanding cultural nuances and diverse health beliefs, healthcare providers can enhance patient trust, communication, and treatment adherence. Multicultural research also fosters the development of culturally sensitive interventions, contributing to reduced health disparities and improved overall health outcomes for marginalized and underserved communities (Dickerson et al., 2020; Tan & Li, 2016; Wilson, 2019; Woodland et al., 2021). This type of research also increases extrapolation and generalization of results of some underrepresented communities, while highlighting the differences and unique characteristics, as well as strength-based approaches of the different populations. Furthermore, multinational research allows for collaboration across countries to integrate knowledge, resources, and expertise. These collaborations have the potential to improve global healthcare policies by providing a better understanding of the similarities and differences of the sites, the challenges their populations

are facing, and the possible strategies to address those challenges (Bansal et al., 2019; Reed et al., 2005; Smits & Denis, 2014; Yao, 2021).

Since 1996, The International Nursing Network for HIV Research (The Network) has provided nurses and health care researchers the opportunity to find ways to improve the quality of life and care for/of people with HIV (PWH) on a cross-cultural and cross-national platform (Holzemer, 2007). Researchers participating in the network come from a broad variety of backgrounds that have implemented multisite studies in Botswana, Brazil, Canada, China, Colombia, England, Kenya, Namibia, Nigeria, Norway, Perú, Puerto Rico, South Africa, Taiwan, Thailand, and the United States. As globalization affects the health of the world's population, the need for multicultural and multinational research is warranted.

Globalization is a phenomenon related to the growing global interconnection fostered by the exchange of viewpoints, commodities, ideas, and cultural components. This interconnection is related to the interaction of large-scale social influences among different societies (Dorri et al., 2020). While research moves toward a more globalized approach, investigators often face rising challenges related to multicultural, multilingual, and multinational approaches. One of the challenges encountered is directly related to the translation of qualitative data. When qualitative research is being conducted, data should be collected in the native language of participants. Providing participants with the opportunity to express themselves in their native language enriches the data, increases external validity, and allows for the identification of specific disparities and barriers that can guide the development of culturally sensitive care and interventions (Esposito, 2001; Roth, 2013; van Nes et al., 2010; Woodland et al., 2021). Multicultural and multilingual research also addresses

vulnerabilities and strengths identified within different cultural and geographic backgrounds to promote the creation of improved health policies adapted to globalization (Esposito, 2001; Woodland et al., 2021).

To gather research data that allows us to identify vulnerabilities, strengths, disparities, and barriers, we need to understand the background and context of the information. Although quantitative data are important in healthcare research, the use of open-ended questions provides us with nuanced qualitative information that helps us more fully understand the participant's circumstances (Tenny et al., 2022). Using open-ended questions requires adjustments in the methodology to ensure the validity and rigor of the results obtained from this data. In qualitative research, validation of the translation process is crucial to ensure that the original ideas expressed by participants are retained throughout all the steps. A valid translation needs to account for potential errors that can arise during this process.

There is an extensive body of literature on the translation of qualitative research (Abfalter et al., 2021; Esposito, 2001; Temple & Young, 2004; Thompson & Dooley, 2019; van Nes et al., 2010; Wong & Poon, 2010; Yunus et al., 2022). Previous research has focused on validity and rigor of the translated data, with an emphasis on data collected from interviews. Adhering to a specific framework will allow us to ensure the validity of the information from multicultural data collection. The Network developed a structured and methodical approach to convey the translation decisions with strategies employed throughout the research process. This approach was developed using a translation framework proposed by Abfalter et al. (2021) that guides translation decisions during the research process. Using Abfalter's framework, we will explain the translation protocol developed for use in the latest Network study, which

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examined the impact of the COVID-19 pandemic on PWH using several questionnaires, some including open-ended questions (Cuca et al., 2023). The purpose of this article is to discuss the approach taken to address the possible barriers that can arise with multicultural and multinational research in a qualitative context.

Translation Errors

A translation error occurs when the original ideas of a participant are reflected inaccurately while being presented in another language. Such inaccuracies or alterations can arise due to linguistic differences, cultural nuances, idiomatic expressions, or structural variations between the original language and the one into which the data are being translated. Previous research studies define multiple categories of translation errors, each creating or specifying different categories. For this methodology, errors are classified as linguistic or pragmatic. Linguistic errors are related to language structures such as grammar, syntax, and vocabulary. Pragmatic errors are related to the use of the language in a specific social or cultural context (Cuc, 2017; Putri, 2019; Rahmatillah, 2016; Soltani et al., 2020). To prevent these types of errors, a translation protocol was developed by The Network.

Translation Challenge Framework

Abfalter et al. (2021) developed a systematic framework with the goal of providing systematic guidance integrating academic discourse and address translation challenges, allowing for control of multiple aspects of the translation throughout the research process. This framework emphasizes in different aspects of the translation process such as transparency, contextualization, ethical considerations, flexibility, and quality assurance. It achieves its purpose by focusing on seven questions that provide criteria to understand and guide the translation process. The questions are Why (reason), When (time), What (data), Who (translator), How (method), Where (location), and By what means (tools). Overall, this framework provides a comprehensive and systematic approach to translation in research, highlighting the importance of considering multiple factors to ensure validity and reliability of the translated data, ultimately enhancing rigor and relevance (Abfalter et al., 2021).

Establishing **why** the translation is undertaken helps to convey the goal of the process. One of the reasons to translate data is linguistic comfort. Translating can lead to higher quality of results, facilitating understanding, and enabling communication across languages and cultures (Abfalter et al., 2021; Croot et al., 2011; Gawlewicz, 2016; Squires et al., 2020). In addition, qualitative research collected and presented in the original language provides value to the international scientific community, while promoting cross-cultural understanding (Abfalter et al., 2021; Younas et al., 2022). By presenting different socio-geographical environments and their variations in behavior, structures, and mental models, researchers enrich the epistemological spectrum and provide new insights of the global community (Abfalter et al., 2021; Verma et al., 2023). Translation is necessary to communicate these insights to an international audience, especially as researchers increasingly work in intercultural teams and global research collaborations.

The time of the translation (when) also affects the results of the process. Translation can occur at different stages of the research process, such as before data collection, at data collection, during data preparation, during data analysis, or at the dissemination of findings (Abfalter et al., 2021; Mohamad Nasri et al., 2020). Translating earlier may ensure uniformity of the ideas and language while translating later can yield high-quality results. Translating in the earlier stages of the process (before/during data collection) not only reduces time and cost of translation but also affects opportunities for discovering new concepts. Translation at later stages (data preparation, analysis, or dissemination) preserves linguistic context (Abfalter et al., 2021).

The decision on **what** to translate depends on the type of data, such as verbal data (recordings), interview transcripts, qualitative analysis results, or final publication texts. Each type requires different levels of translation and may involve condensing or synthesizing information. The choice of **who** conducts the translation depends on language proficiency and researcher positionality. Multilingual researchers, interviewers, interpreters, analysts, or professional translators may be involved at different stages of the research process (Abfalter et al., 2021; Gawlewicz, 2016).

The **how** of translation refers to the techniques used for the translation. It can involve hermeneutic approaches focused on preserving meaning and context (Alsaigh & Coyne, 2021; Suddick et al., 2020), or technicist approaches that prioritize accuracy and validity (Abfalter et al., 2021). Different translation techniques can lead to different translation challenges, including linguistic characteristics, expressions of strength and power, and socio-geographical language differences. The question of where translation takes place considers the sociogeographical location of the translator and its impact on researcher positionality and social identities. Translation can occur within the socio-geographical environment of the target original language, the socio-geographical environment of the target language, or outside of both environments. When the process occurs in the socio-geographical environment of the source language, it is happening within the specific subculture embodying that particular social identity. Opting for this approach helps retain a richer context and the authentic meaning expressed by the interviewees, thereby enhancing the relevance of the translation (Abfalter et al., 2021).

By what means addresses the choice of auxiliary tools for translation, such as dictionaries and information technology

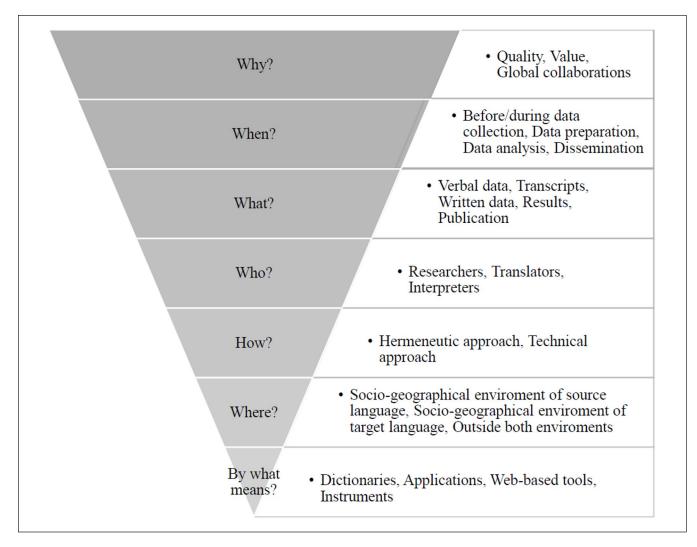


Figure 1. Diagram of Translation Framework (Abfalter et al., 2021).

(IT) applications. Dictionaries range from physical books to digital applications, or web pages. IT applications can aid in the process, but may not provide fully accurate translations (Chan, 2023). The selection of tools depends on language skills, availability of resources, and the research context (Abfalter et al., 2021) (Figure 1).

Translation Protocol of the International Nursing Network for HIV Research

In 2020, The Network initiated its eighth international multisite study, which examined the impact of the COVID-19 pandemic on PWH in 14 countries (Botswana, Canada, China, Colombia, Hong Kong, Kenya, Myanmar, Nigeria, Puerto Rico, South Africa, Taiwan, Thailand, and USA). Quantitative and qualitative data were collected and the responses were entered into an online Qualtrics system (Cuca et al., 2023). This protocol was created to translate the qualitative responses.

Why?

As we conduct research in multicultural, multinational backgrounds, there is a need to translate the data to a single language to facilitate analysis and dissemination of results. Data are collected in the participant's native language because it creates high-quality results (Abfalter et al., 2021; Gawlewicz, 2016). Responding in their native languages, participants are able to use metaphors, sayings, colloquialisms, expressions, and regional vocabulary that provide them the opportunity to describe their circumstances in a richer context (van Nes et al., 2010). As investigators of The Network regularly communicate in English, the group determined that data would be translated into this language to facilitate the analysis, discussion, and dissemination of results.

When?

The translations were completed throughout two different phases of the research process: before data collection and during data preparation. The first phase of the translating process occurred before data collection when surveys initially identified in English, needed to be translated to different languages. The second phase of the translating process occurred after the data were collected from participants and submitted in the shared database. The translation occurred while cleaning the database and before the data were analyzed. Translating at this point of the process ensures the preservation of the linguistic context (Abfalter et al., 2021), providing findings of a higher quality (Younas et al., 2022).

What?

During the first phase of the translation, instruments used in the original English survey and study documentation (e.g., consent forms) were translated from English to Chinese, French, Setswana, Sotho, Spanish, Swahili, Tsonga, and Venda. For the second phase of the translation process, data collected from open-ended questions were translated from the participant's native language to English. The original answers to the questionnaire were uploaded to the Qualtrics platform. Once data collection was completed, responses to open-ended questions were provided to site principal investigators (PIs) to proceed with the translation process. There were two types of responses to the open-ended questions that needed translation: categorical responses and extensive responses.

Who?

Each site had a team of experts that translated the data. Translation of the data was conducted in two ways. For sites in which more than one investigator had native-speaker knowledge of both the original language and the English language, at least two investigators worked together to translate the data. In other sites, an expert translator conducted the process alongside the site's PI. To minimize pragmatic and linguistic errors related to translation, the persons performing the translation had a minimum of sociolinguistic language competence in both the native language and the English language (Squires, 2009). The persons performing the translation were also experts on the cultural and discourse rules related to both languages (Martinez & De Vera, 2019).

How?

The first phase of the process entailed the identification of instruments with validated translations, such as Patient-Reported Outcomes Measurement Informations System 10 (PROMIS 10), Alcohol Use Disorder Identifications Test-C (AUDIT-C), Primary Care PTSD Screen for DSM-5 (PC-PTSD-5), and Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST) (Cuca et al., 2023). Items from publicly available instruments for which there was no identified validated equivalent in other languages were adapted using a process of iterative translation and back-translation, and integration with a hermeneutic approach. Translation and backtranslation are critical steps in the process of cross-cultural adaptation and validation of questionnaires. This process involves translating the questionnaires into the target language and subsequently back-translating them into English to assess the fidelity of the original concept's retention (Brislin, 1970; Ozolins et al., 2020). When researchers aim to use a questionnaire in a different language or cultural context, it is important to ensure that it maintains the intended meaning, validity, and reliability across languages. This can be achieved by following established procedures, including forward-back translation, reconciliation, and expert committee evaluation. To confirm validity and reliability, multiple statistical analysis can be performed, such as Rasch analysis, hypothesis testing, Cronbach's alpha, and test-retest, among others (Hawkins et al., 2020; Kalfoss, 2019; Monticone et al., 2021; O'Brien et al., 2019). Regular meetings between every site's team (Who) were conducted to address and resolve any discrepancies. For the Spanish translations, a multisite team from Colombia, Puerto Rico, Texas, and New York refined the questionnaires and offered suggestions, fostering discussions that ensured equivalence (Beaton et al., 2000; Hawkins et al., 2020). These inter-site discussions proved crucial in navigating diverse cultural nuances (Cuca et al., 2023). It is important to note that while many questionnaires are publicly available, some may still require explicit permission from the original authors or copyright holders for translation and use in research.

In the second phase, translations of the qualitative responses were conducted either by the investigators with their research team or with expert translators following a hermeneutic approach. The hermeneutic approach takes into consideration cultural aspects to interpret the text because it allows the translation of the text re-creating as much as possible the original intention of the expression (Alsaigh & Coyne, 2021; Suddick et al., 2020). After individual translations were completed, the site team met to discuss each translation and reach a consensus over the final version.

When translating colloquialisms or slang, the translators indicated the words that were part of the colloquialism/slang. If the team could not translate a specific phrase or word, they left it as is to be discussed with other colleagues of the study. Some words or phrases could not be textually translated. In these cases, an explanation of the meaning of that word or phrase was provided. For example, during the translation process of the data gathered in Colombia, one participant mentioned "El Alumbrado." In this case, the participant was referring to a popular Christmas attraction and this was explained in the comments. Translations were performed as close to the original meaning as possible, which included colloquialisms, slang, and language that may be considered offensive. By translating as closely as possible to the intended meaning of the participant, we ensured the validity and reliability of the data.

Where?

Translations were conducted within the socio-geographical environment of the participants' language (Abfalter et al., 2021). By conducting the process within these locations, the preservation of the cultural nuances and contextual information is ensured. Translating within the socio-geographical environment allows for preserving contextual information and original meaning, increasing the relevance, and allowing for adjustments specific to the population that is being recruited. For instance, during the study period, in Hong Kong, local people were not familiar with the term "essential workers" which refers to employees who play a range of roles and provide services in industries crucial to society's critical functions during the COVID-19. Instead, the research team had study participants report their industries of employment.

By What Means?

A table was created to support the translation process and establish consistency. The table displayed the answer in the original language, the translations of the team members, the final translations, and commentaries. The comment section specified whether there were differences in the translation, how consensus was achieved if a specific word or phrase was not translatable, the meaning of an untranslatable word or phrase, and other information important to the process. In addition, web-based automated translation tools such as Google Translate and DeepL Translator were used to facilitate the process.

Discussion

The translation experience in our multicultural, multisite study addressed past barriers to research by operationalizing Abfalter et al. (2021) framework to enable a rigorous process. Nonetheless, there were barriers to this process. For example, there are linguistic complexities within each language. Furthermore, some investigators collected data through a paper questionnaire, others collected the data online, and another group collected the data by interviewing the participants. The variations in the method of data collection may have influenced the length and type of responses participants gave. In addition, as expected in a multisite, multilingual research project, there were different areas of expertise regarding the translation process. Nonetheless, the creation of the translation protocol ensured that the process was consistent in all sites.

The cohesion of a group that has been working together for over two decades enhanced the integration of expertise in different areas. By promoting open communication with the multilingual researchers and applying the knowledge of qualitative research subject matter experts within the team, the translation protocol was developed. Expert translators were incorporated into the process to integrate the firsthand knowledge of the investigators with the expert opinion of the translators. Including the translators in the process, as well as the multilingual researchers, allowed for the preservation of cultural and linguistic nuances. This in turn ensured that we would have contextually rich translations. Moreover, the constant communication and support within the team allowed for a rigorous review and validation process that guaranteed the integrity of the findings through an ethical process.

Recommendations

Multiple steps can be taken to ensure trustworthiness and reliability of translated data. Based on our experiences, we provide the following recommendations:

- Clearly define the goal and objectives of the translation process, considering the intended audience and purpose of the research.
- Develop a translation protocol that outlines the translation process, specifying roles, responsibilities, methods, and tools to be used, guided by a systematic translation framework.
- Aim to provide linguistic comfort for participants, allowing them to express themselves naturally in their native language, incorporating local idioms, sayings, and expressions.
- Ensure consistency in translations by employing a systematic and rigorous approach throughout the translation process, particularly when multiple translators are involved.
- Engage translators who are proficient in both the source and target languages and possess cultural competence to accurately convey the intended meaning of the text.
- Opt for a multistage translation process, including forward translation, back-translation, and reconciliation stages to enhance the accuracy and validity of the translated data.
- Clearly identify and explain colloquialisms, slang, or region-specific language used by participants, providing context or equivalent expressions for the translated text.
- Prioritize the preservation of the original meaning and intention of the participant's responses during

the translation process to maintain data validity and reliability.

- Apply a hermeneutic approach to translation, focusing on understanding and interpreting the cultural and contextual aspects of the text to ensure meaningful and contextually appropriate translations.
- Facilitate a collaborative review process involving translators and research teams to validate the translated data, ensuring accuracy, consistency, and adherence to the original meaning.
- Use technology, such as translation software, as auxiliary tools to aid in the translation process, but exercise caution and rely on human expertise to verify accuracy and appropriateness.
- Maintain comprehensive documentation of all translation decisions, including any challenges encountered and the resolutions reached, to enhance transparency and replicability.
- When possible, conduct translations within the socio-geographical environment of the source language to preserve cultural nuances and contextual relevance.
- Foster a respectful and sensitive approach to crosscultural understanding, valuing, and representing the perspectives of participants from diverse linguistic and cultural backgrounds.
- Uphold ethical standards in translation, including participant confidentiality, informed consent, responsible handling of sensitive information, and translating with sensitivity and respect for the participant's original meaning, context, and emotions conveyed in their language.

Conclusion

The translation process in research can have significant implications for the dissemination of results. By considering Abfalter's framework elements in the translation process, we developed a structured and methodical approach to convey the translation decisions with strategies employed throughout the research process. The level of detail and clarity in explaining the translation process enhances the transparency of the research methodology, allows for replication, and supports the validation of research findings. Moreover, it promotes cross-cultural understanding and cultural sensitivity, ensuring that the research respects and represents the perspectives of the participants and the broader cultural context in which the study is conducted.

Implementing robust quality assurance measures throughout the translation process is essential. Regular reviews, back-translation, and consensus-building discussions among translators and research teams can help identify and rectify any inconsistencies or errors, ensuring high-quality translated data. Proper translation practices, including language proficiency, cultural sensitivity, and ethical considerations, are crucial for ensuring the clarity, validity, and impact of the research findings in the global scientific community. Researchers should be transparent about their translation methods and discuss any potential limitations to maintain the integrity and generalizability of their work. Overall, maintaining clarity in the translation process ensures that research is conducted ethically, respects cultural diversity, and produces reliable and meaningful findings. The result is that it enhances the credibility and trustworthiness of the research, fostering cross-cultural collaborations and facilitating the global exchange of knowledge.

Authors' Note

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