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Methods Corner

Designing and conducting qualitative research across countries and cultures: challenges for inclusiveness and rigour

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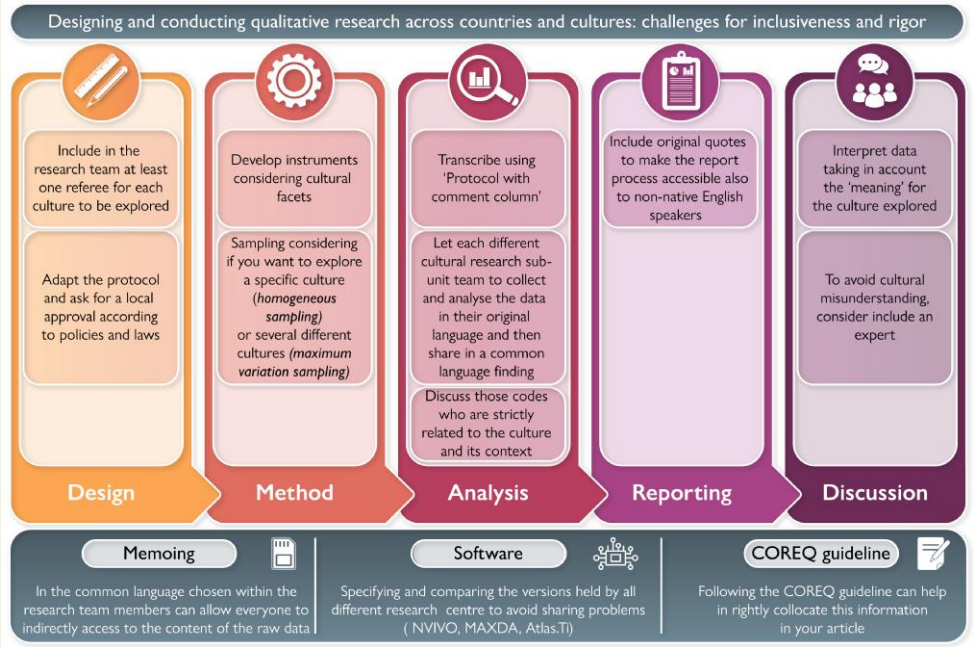
Qualitative research is fundamental to understanding the nature and complexity of human phenomena. While cultural and psychometric validations exist for quantitative tools, the same cannot be said of qualitative ones. There are other many challenges when conducting a multinational qualitative study, which includes different cultural and linguistic 'biases'. This paper presents some key issues that researchers may encounter when designing and developing multinational and multicultural qualitative studies, and also provides some strategies to overcome difficulties and ensure rigour.

Graphical Abstract



Keywords Qualitative research • Multicultural research • Qualitative method • Inclusiveness • Rigour

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Learning objectives

- Identify common problems in the design and conduct of multinational qualitative studies.
- Describe cultural and linguistic challenges in qualitative analysis.
- List two strategies to enhance rigour of multinational qualitative studies.

The problem

Qualitative research aims to study human phenomena by exploring and interpreting their meaning from the perspectives of those who experience them. Qualitative research explores emotions, feelings, experiences, and behaviours of both individuals and groups of people in natural contexts and attempts to describe the meanings people attribute to them. In nursing and related health sciences, qualitative studies are particularly useful because they allow us to better understand human behaviours. Moreover, qualitative research can help us understand how culture influences health and illness representation across the lifespan.[1]

In the current era of globalization, people with different linguistic and cultural backgrounds connect with broad global networks, and qualitative researchers from different geographical locations and backgrounds collaborate much more extensively than ever before. Although the number of multilingual qualitative studies has expanded in recent years, investigations on the methodological issues arising from the use of different languages within single research studies are still scarce. Many existing studies have been more concentrated on issues related to the use of interpreters and translation, during or after data collection, and in contrast have paid less attention to ensuring methodological rigour during all phases of the study. Put simply, when studying people from different cultural and linguistic backgrounds, it is critical to address epistemological and methodological challenges which are aimed at avoiding cultural bias across all study phases.[2]

Cultural bias is a common problem experienced in multinational qualitative. Cultural bias is a tendency to interpret a word or action according to culturally derived meaning assigned to it, and it is sensible to cultural variation which is the diversity in social practices that different cultures around the world.[3] The American Psychological Association add to this definition the judgement, stating that this 'tendency… sometimes leads people [investigators] to form opinions and make decisions about others in advance of any actual experience with them (see prejudice).'.[4] If present, this prejudice can lead to unintentional misinterpretation, discrimination, or exclusion of the actual nature of the population. Specific groups can also be excluded or misinterpreted by the researchers, producing knowledge that is an incomplete and unreliable representation of the experience. Prejudice also can create misleading opinions and preconceptions even prior to the onset of investigation.[5] Thus, it is essential to have appropriate cultural representation when designing the interview guide. Hence, it is important to define which contextual and cultural problems may arise in the different phases of a qualitative study. Accordingly, the aims of this method corner paper are to:

(1) present the main challenges that researchers may experience in the design and analysis phase of multinational and multicultural qualitative studies, and

(2) provide strategies to overcome difficulties and ensure rigour in the conduct of multicultural qualitative studies.

Challenges in design: protocol translation and question adaptation

Research questions are crucial to explore the phenomenon under study, orienting the entire investigation process, and above all, interpreting the results. But researchers who are not part of the population under investigation could formulate research questions that are not culturally congruent or appropriate.

Consequently, by constructing research questions that are not appropriate to the culture of the sample to be explored, the risk is to commit a series of 'chain errors' that compromise the veracity of the study findings.

Health concepts and issues are deeply embedded in culture. Words and their meanings are not fixed as often displayed in dictionaries. Apart from cognitive meaning, there are also cultural meanings which are not revealed in lexical definition.[6] Additionally, investigators may be capturing phenomena other than those originally conceived because they lack knowledge of cultural values or beliefs specific to that population. For example, if we want to explore the phenomenon related to drug prescription among nurses in Europe, we have to consider that not all European countries allow nurses to prescribe medications despite the free circulation of European nurses established by European laws (2005/36/CE). The same reasoning applies to the choice of data collection instruments. For example, if we want to build an interview guide for a cross-cultural study based on the research question 'how did you experience pre-infarct symptoms?' to explore how people experience this acute circumstance, we have to take into account that the perception of symptoms is a process of self-reported health complaints influenced by culture. The study by Arslanian-Engoren[7] shows that Hispanic women were more likely than Black women to perceive the symptom of headache as indicative of a myocardial infarction. This evidence suggests that ethnic differences influence the perception of one's own state of health. This evidence needs to be taken into account when people from different cultures are included in a qualitative study, so both the overall structure of the study and the interview guide will have to be constructed with these differences in mind in order to ensure the credibility of the study according to the Lincoln and Guba criteria.[8]

The choice of the approaches for data collection (i.e. interview guide, diaries, focus groups, and ethnography) also is affected by the above-mentioned issue. Importantly, if the tool is developed without considering cultural facets, it could lead to the attribution of different meanings to words or terms used during data collection. Developing an interview guide in different languages means having a serious reflection on the terms to be used, and also considering their etymological roots. For example, despite the fact that *facilitator* and *help* are often used as synonyms, at an etymological and linguistic level, *help* is an action given to aid, while a *facilitator* is a person who provides help in order to reach a consensus on opinions or actions. A similar example can be observed also with the words *problem* and *need* (in health). In qualitative interviews, there is a tendency to use positive words, that is, why the term *need* is preferred to the word *problem*. But trying to identify the needs of a population

without exploring the information about the problems is like trying to fish without a pond.

For example, what are the right terms that we should use in an interview guide for a multicultural study (including England, Spain, and Italy) in which we want to investigate barriers and facilitators in Left Ventricular Assist Device (LVAD) management? A typical question might be 'How confident do you feel about LVAD management?'. Assuming we wanted to translate the interviews, what would be the most suitable terms according to each language? The first translation of 'confident' in Italian is 'sicuro'. 'Sicuro' in the Italian language, like other words, can take on different meanings. In fact, 'sicuro' can mean not only 'how confident do you feel (e.g. able to handle it)' but also 'how safe do you feel (e.g. to use this device)' and 'how protected/secure do you feel' in general. Linguistic issues such as these require good communication and agreement among researchers, not only in terms of the content to be included, but also in terms of the meanings they wish to investigate.

Another question might arise is the inclusion of secondary sites to replicate the primary study. Taking the previous example as a hypothesis, let us suppose that the study was first carried out in England, and then it is decided to replicate it in Italy. In the interview guide, there might be a question such as: 'How did you apply the advice received from the discharge nurse?'. There would not be a problem here from a semantic point of view, but it would still be impossible to include this question, as it is inapplicable for the Italian context. Understanding 'discharge nurse' as that professional who makes contact and calls to organize follow-up services, equipment, and supplies, as well as reinforcing patient instructions and preparations for discharge, it would not be possible to apply it to the Italian context. In fact, in Italy, at the time of discharge, the hospital specialist refers the patient to his or her home under the supervision of the attending physician.

Finally, the last problem we want to address is how to include minorities that are integrated into the major culture. For example, there are countries that are highly globalized or with rich immigration phenomena, thus there are subcultures that are perfectly integrated into the native population. In Italy, for example, a strong nurse migration phenomenon occurred in the 1990s, especially from countries such as Romania, Albania, and South America. If today we conducted a study among nurses, part of our sample would easily include professionals originating from those countries but who had been working in Italy for a long time. Thus, in planning our research, we should consider if the different cultural backgrounds could constitute a selection bias. But 'How can the different nursing education and cultural background impact the care given in a different population?'. Also, there are possible problems of cultural adaptation in studies on entire native populations, which are internally rich in different official languages like in Switzerland (French, German, and Italian) or Pakistan (Punjabi, Pashto, Sindhi, Saraiki, and Urdu). *Does this linguistic difference only require an accurate translation or is there more than linguistic difference in these countries?*

Planning and preparing an interview guide for a cross-cultural study:

> We already know that there are three kind of qualitative interview: 1) structured (questions asked in the same inflexible order for all the participants); 2) semi-structured (some pre-defined questions that the researcher follows in a flexible way); 3) unstructured (the researcher has a clear sense of purpose of the study and questions the participant without the need for an interview guide).[9] Depending on the research questions, an interview structure may be more or less adaptable to the aim of the study. However, if our aim is to explore the interviewee's experience, it is advisable not to remain too anchored to the interview guide. In fact, if we follow the interview guide as a strict script, and do not let ourselves be guided by the interviewee's answers, especially if he or she does not belong to our culture, we might end up with unexpected answers. It is therefore necessary to apply a strategy that reconciles the need to answer research questions with the duty to conduct a study that is methodologically and ethically correct with regard to the culture to which the interviewees belong.

Adapting what Mason[9] proposed about the planning and preparation for qualitative interviews, we have identified a strategy to helping the construction of an interview guide while considering the cultural differences among participants (see *Figure 1*).

For all these reasons also, data collection requires particular attention, in which the characteristics of both the interviewer and the research team cannot be left to chance. Researchers with different cultural backgrounds may not guarantee the criteria of methodological rigour required.[10] How to represent what is perceived by the researcher to be congruent with what is expressed by the person interviewed and the 'real' reality? (credibility). How does one ensure that the results are a function of the informants only and not of cultural bias? (neutrality/confirmability).[8]

Approaches to developing rapport and ensuring psychological and cultural safety

Achieving cultural safety in health research involves understanding the social, political, and historical contexts of the population of interest in the study. It requires social intelligence skills,[11] cultural humility, awareness, and sensitivity in understanding that between researchers belonging to the dominant culture and populations belonging to vulnerable groups, there are power imbalances in the self-determination of their own cultural concepts of health and well-being.[12] Vulnerable population groups, experiencing inequalities in their health experiences and health outcomes are subsequently subjected to the enquiring lenses of researchers and their interpretation. Just as in clinical practice, we apply the Latin maxim 'Primum non nocere', in the same way in research researchers need to create 'safe spaces' in which those being researched can negotiate with researchers on how research is to be conducted in accordance with sociocultural characteristics and protocols.[13]

Furthermore, it is also important to consider that the concept of culture includes age or belonging to different generations of researchers and research sample, gender identities and sexual orientation, socioeconomic status, and religious or spiritual belief.

Consequently, cultural safety requires reflexivity. Reflexivity 'means turning of the researcher lens back onto oneself to recognize and take responsibility for one's own situatedness within the research and the effect that it may have on the setting and people being studied, questions being asked, data being collected and its

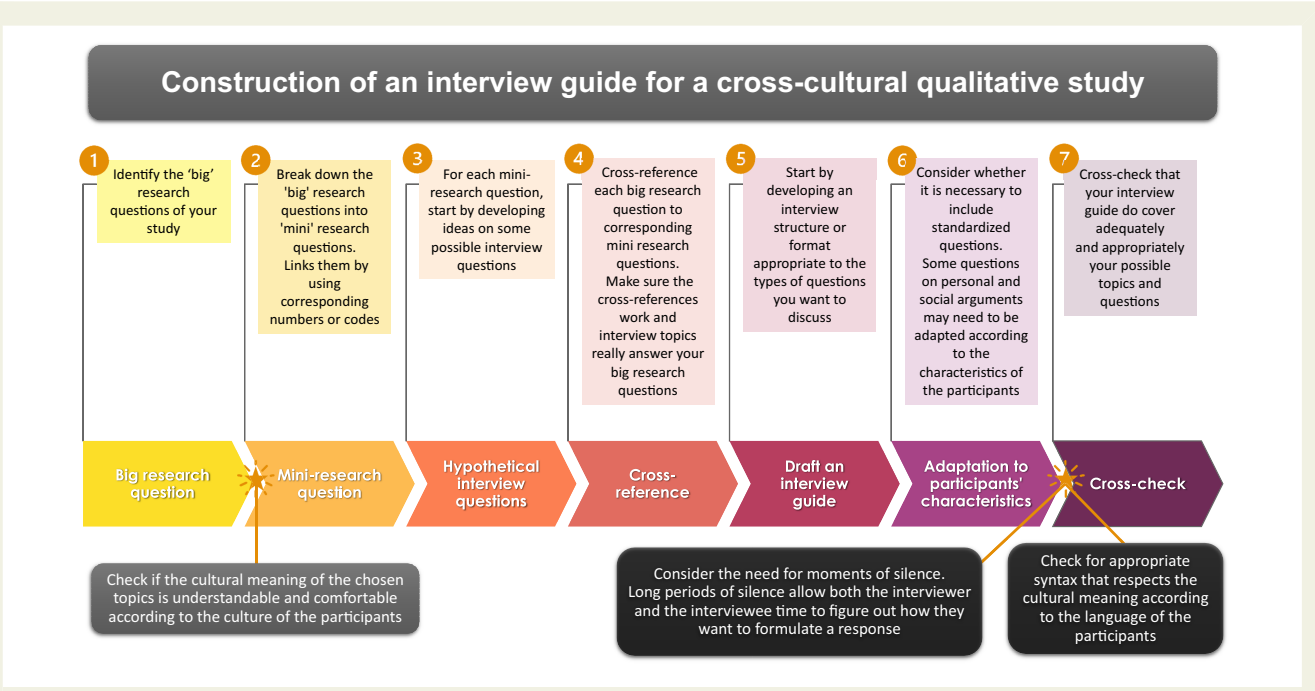

Figure 1 Strategy for interview guide construction.

interpretation'.[14] Reflexivity is challenging because it implies questioning personal beliefs, more or less conscious, that we have assumed throughout our lives from our surroundings, our families or religion. However, reflexibility led to transparency and consequently reinforced the rigour of the study.[15] To obtain beneficial and relevant research outcomes in cross-cultural studies, we have to respect the principles of '4Ps'.

The 'P' of 4Ps is corresponding to: *Partnership*, *Participation*, *Protection*, and *Power*.

- The principle of *partnership* requires that between researcher and research object, there is a relationship based on mutual trust and respect for each other diversity.
- The principle of *participation* entails the continuous involvement of the researched groups in the planning and decision-making processes within a research project, and ideally in the research itself in order to achieve a more conscious respect of their cultural rituals and behavioural protocols.
- The principle of *protection* requires not only respect for the participants' values and beliefs but also active safeguarding of them.
- The essence of the principle of *power* can be summed up in this famous quote from the Marvel comics: '*With great power comes great responsibility*'. Indeed, the researcher must reflect upon their own privileged position within the relationship with the research subject, who may feel potentially denigrated especially if the researcher belongs to the dominant culture of that context.[13]

Problems in analysis: to translate or not to translate

Data coding is crucial in any qualitative study. The researcher elaborates and aggregates codes to formulate themes or explanatory categories of the studied phenomenon (according to the degree of abstraction chosen). Each culture may attribute a different meaning to a word or phrase extrapolated from the text under analysis; consequently, the risk is that each researcher might code differently because they are influenced by their cultural orientation. In these cases, a coding bias is very high. Currently, most of the analytical methods to analyse qualitative data do not include specific coding rules and even less coding by considering multicultural populations or languages. But before adopting coding rules, the first challenge of the analysis phase is: *to translate or not to translate*, that is the question.

The solutions

Below, the authors suggest some tips on how to apply the Lincoln and Guba criteria to a cross-cultural study (see *Figure 2*).[16]

Sampling: which sampling is most suitable for a multicultural study?

A famous song by Jarabe de Palo named '*Depende*' said: '*De según como se mire, todo depende*' (depending on how you look at it, it all depends). The metaphor of the 'lens' used to look at the phenomenon under study is widely used in qualitative research. In the same way, as the choice of lens curvature is important for capturing the best image, the sampling must be chosen appropriately to what we want to collect from our participants. There is no one-size-fits-all strategy for all studies requiring consideration of the cultural background of the participants.

'*Depende ¿de qué depende*?' ('It depends on what?')

It should be considered, however, that the design will have to include the sampling strategy best suited to the research question. For example, *homogeneous sampling* is more suitable for those studies that aim to explore one specific culture or subculture. While maximum variation sampling will be more appropriate for those studies

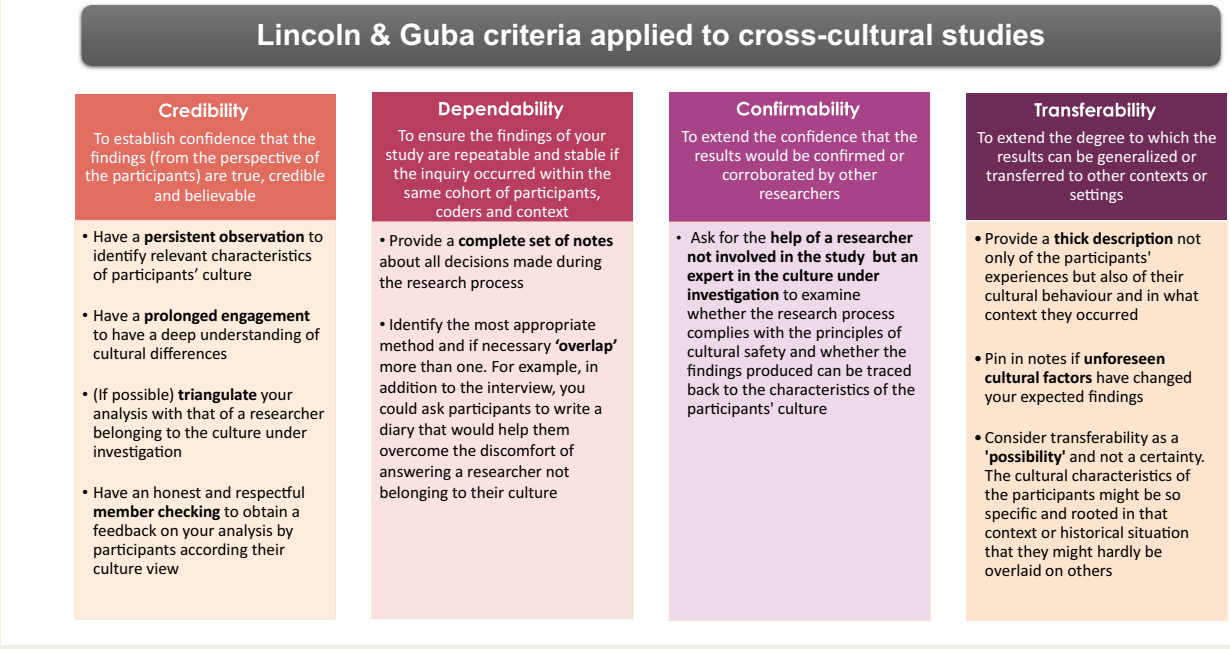

Figure 2 Application of Lincoln and Guba criteria.

that aim to include several different cultures or subcultures in a unique sample.[17]

Cultural bias and research process

The quality of research is always important, especially to transfer findings into practice and care delivery.[18] Qualitative research is frequently criticized because it lacks generalizability, the analytical procedures might be considered poorly transparent and the findings are very subjective and grounded on personal opinions.[19,20] This sense of disputable subjectivity is more perceived in studies where participants and researchers do not belong to the same culture. The qualitative researcher is part of the research process, and their assumptions and beliefs could influence the research process, both positively and negatively.

One way to make the researcher's cultural background a 'positive influence' is to involve, at the design level while writing the protocol, a member from the cultural context who will be explored as a cultural co-researcher. An example of this approach can be found in the study by Haghshenas and Davidson,[21] which included, in their study on cardiac rehabilitation, health professionals from diverse professional and language backgrounds. When it is not possible to include researchers, who know the cultural background of study participants, it is important to include at least researchers belonging to the country of the study's participants. For example, one could include a local interviewer or a cultural mediator to help participants to communicate more efficiently, especially when they use some 'untranslatable' words. Communication is at the crux of data collection in a multilingual setting. Especially oral data collection in different languages presents additional issues.[5] Another useful tip is to engage a local interviewer to help investigators discover culture-based themes that would be best included or excluded when designing the interview guide or focus groups. For example, there are cultures in which there can be a gender or social 'unwritten rule' that can block the research purpose if ignored.

The analysis dilemma

As previously written, another important issue in multicultural studies concerns transcription, translation, and interpretation of the qualitative data collected. In many cases, translating the collected data into the presentation language is fraught with methodological pitfalls related to the handling of colloquial phrases, jargon, idiomatic expressions, word clarity, and word meanings.[22,23] In the same way, the most used 'verbatim' transcription and consequential translation—often in English—could be the least appropriate way to preserve linguistic and cultural differences. A trick that could help the researcher while they are designing the study is to choose a specific transcription system which ensures that transcripts are understandable for the whole multicultural research team. For example, the 'Protocol with comment column'[24] allows us to include, in addition to the literal transcription of the registrations, the cultural-specific meaning of uttered words in a column alongside the transcription text.

Considering, Pierce's semiotic theory[25] which defined signification as a complex triadic interaction between object, sign, and the interpretant, we must take into account that 'meaning' depends on who expressed the concept and how, and who perceives it. In our experience, a good strategy to avoid misunderstanding was to let each different cultural research subunit team collect and analyse the data in their original language and then share it in a common language finding. This strategy allowed us to catch the meaning of all those idiomatic expressions that translated 'word-for-word' in another language lost in translation. Furthermore, a specific method called 'Contextual Coding' (Younas, under review) was developed from our international experience.

As described above, globalization is an increasing phenomenon in our society. This leads to a process whereby the boundaries that determine cultural minorities are becoming increasingly blurred

(e.g. second-generation children of immigrants or business travellers who settle for many years in a non-native place). The fundamental issue concerns if these kinds of participants should be included or not. Considering our past experience, we included them regarding their different cultural background in contrast to the rest of the population in data interpretation.[26]

Software: what hardware and/or software is needed for this method?

Another fundamental issue in multiple cultural and multicentral studies concerns the use of computer-assisted qualitative data analysis software (CAQDAS; e.g. Nvivo, MAXQDA, IraMuteq, or Atlas). CAQDAS is a computer program for qualitative content analysis which allows to analyse the consistent quantity of qualitative data and transfers them into a software program to control step-by-step text analysis.[24] During the design of the project, it is important to immediately check the CAQDAS and the version available in each participant's centre. Comparing the versions at the beginning is mandatory to avoid sharing problems, which may cause time and data loss while sharing them from one software to another that may not be compatible. They are also a valid support because they allow storing not only transcriptions but also original audio or video. Furthermore, 'memoing' in the common language, chosen by the research team members, can allow everyone to indirectly access the content of raw data.

Reporting: how to report? What parameters/features to report?

In line with the problems expressed before, at first, it is essential to clearly state the identified cultural adaptations of the protocol that had been necessary to carry out the research. So, if there were a need to apply changes in the structure of the questions or to have an interviewer with a specific characteristic, then it would be necessary to make it known. Following the COREQ guideline can assist in rightly placing this information in your article.[27]

Furthermore, it could be useful to include in the reporting the original quotations of the findings with the translation to make the report process clearer[28] and accessible also to non-native English speakers. Moreover, a good strategy to report the findings in the clearest and most transparent way is to declare the possible cultural bias and probably linguistic gap due to translation. If possible, the support of a linguistic expert can reduce the risk of translation and adaptation mistakes. Moreover, this will enhance the collaboration between experts from different fields of knowledge.

Conclusion

Despite it being challenging to conduct multicultural studies, it would also be challenging to conduct studies without considering culture in a globalized health reality, both from patient and clinician perspectives. In accordance with previous studies, when designing the study, the challenge is to know when ethnicity makes a difference and/or mediates a person's relationship with service support and when it does not.[29] Thus, health professionals should develop a cultural repertoire to engage with diversity and differences[29] even if English is the language of science and almost all literature in this field is written in this language.[30]

It is not possible to ensure that the strategies here presented are exhaustive to ensure inclusion and cultural sensibility in health research topics. However, multicultural studies are still few in cardiovascular care, so further research is needed to build solid evidence which can turn into a real setting practice.

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Data availability

Data sharing not applicable to this article as no data sets were generated or analysed during the current study.

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