

Article

**“What Did She Say? What Did She Say?”
The Impact of Interpretation on Recruiting and Interviewing
European Migrant Women in the United Kingdom**

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Abstract

Although a few researchers mention that involving interpreters can have an impact on the research process and research findings, little is published regarding methods of assessing the interpretation work's quality and impact. The impact of lay volunteer interpreters used in audiorecorded semistructured interviews on collecting data and the data quality and subsequent analysis is examined. A new systematic approach is presented comparing original interview transcripts (conducted with volunteer interpreters) with independent transcripts, reinterpretations by professional interpreters. Findings indicate that involving volunteer interpreters had an impact on the validity and reliability of a portion of the data, the subsequent analysis, and some practical research aspects. Researchers involving interpreters should pay careful attention to the interpreters' influence on the research, the data produced, and critically bring this to bear in their analysis and interpretation. The systematic comparative approach is a cost-effective tool that can be used successfully to examine the influence's effects.

Keywords: interpreter, validity, reliability, quality of data, qualitative research, semistructured interviews

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Introduction

Although there are growing numbers of research studies being conducted in English-speaking countries with people who speak little or no English, few researchers working in this field have addressed the methodological impact of using interpreters on the research process and on the validity and reliability of the data, from a health services research perspective.

Hammersley (1990) has defined validity as truth, in relation to the extent to which an account accurately represents the social phenomenon to which it refers. Reliability refers to the degree of consistency with which instances are assigned to the same category by different observers or by the same observer on different occasion (Hammersley, 1992). In this paper, validity indicates the precision of the interpreted meaning of the questions or answers, insofar as they reflect the intention of the original, whereas reliability indicates the consistency of the meaning of questions or answers after interpretation

Although this is not a technical linguistic paper, two linguistic terms (accuracy and equivalence) will also be used in assessing the quality of interpretation. As Johnson and Johnson (1998) have defined *accuracy*, it is a prime target of students' attainment in second language proficiency, and it deals with the production of structurally correct instances of that language. According to Hartmann and Stork (1972), an *equivalent* term is as a word or phrase that corresponds to a similar word or phrase in another language, or words with no etymological connection but similar meaning and hence, crucially, shared understanding between speakers of the two languages.

One way to assess migrant populations' experiences and to identify their needs is through qualitative interviews (Wallin & Ahlström, 2006). However, members of many migrant populations to English-speaking countries are likely to have limited knowledge of English, as it is not their first language. In addition, researchers generally do not have the language skills necessary to communicate with a linguistically diverse population and often restrict participation to English-speaking participants (Hunt & Bhopal, 2004).

To conduct research that incorporates such members of the population, an intermediate person who can understand and communicate in both the researcher's and the participants' languages is required to facilitate communication. Such an intermediate person might be an interpreter, who does oral translation, usually involving face-to-face interaction rather than working with written texts (Eboh, Pitchforth, & van Teijlingen, 2007; Temple & Edwards, 2002). Although some researchers have used the term *interpreter* interchangeably with *translator* (e.g., Eboh et al.,

2007; Temple, 2002), the latter has a different and distinct meaning. It refers to a person who turns text from one language into another in written translation (Eboh et al., 2007). These terms will be used in this paper according to their precise definitions.

Birbili (2000) highlighted that collecting data in one language and presenting the findings in another engages the researcher in a translation process that has a direct bearing on the validity of the research and its reporting. Furthermore, Squires (2008) stated that if an interpreter's interpretation changes the meaning of a participant's words, this will affect the findings of a cross-language qualitative study and should be acknowledged.

Kapborg and Berterö (2002) conducted face-to-face group interviews with 10 Lithuanian students using interpreters. They found that potential threats to validity occurred at various points during the interviews. The first threat occurred when the researcher, whose first language was Swedish, posed a question in English to the interpreter; the second arose when the interpreter interpreted the question from English to Lithuanian, and the final threat happened when the interpreter interpreted the participant's answer from Lithuanian to English. It was concluded that to minimize these threats, interpreters should be trained in the research field in addition to their linguistic training.

Temple (2002) pointed out that as researcher and participants have an influence on a research study, involving others, such as interpreters, might also have a significant effect on the research; for this reason, involving interpreters in research must be carefully considered. Temple and Edwards (2002) consider the interpreter as essential to the final research product. They suggested that interpreters should be visible in any research by their impact on the research process and on the data being highlighted. It was mentioned in the same report that when an interpreter is involved in research, the research becomes subject to "triple subjectivity" (the interaction between participant, researcher, and interpreter). As a result, the components of interpreted interviews are not the same as those of usual interviews, because the interviewee-interviewer conversation is mediated by an interpreter who is interpreting the question and the answer forward and backward. It is not just the interviewee and the interviewer who bring their own concerns and assumptions to the interview and the research process, but the interpreter (as a third participant) also has an active role in the interview that can affect the data collection process and the derived data.

In a systematic review, Wallin and Ahlström (2006) found that the interpreter's role is necessary in cross-cultural nursing research, whether or not the interpreter is considered to be part of the analysis. They recommend that attention should be paid to the interpreters' effect on the research process and on the research findings as well.

There is little published evidence demonstrating how to examine interpreters' impact on the data collection process and research findings. For example, Murray and Wynne (2001) mention that one way of checking the validity and reliability of the data from tape-recorded interviews is to get a second (or third) interpreter to verify the accuracy of the first interpreter's interpretation.

Pitchforth and van Teijlingen (2005) employed one lay interpreter to help in interviewing women from Bangladesh to investigate women's experiences of utilizing emergency obstetric care. The authors checked the accuracy and validity of their original transcriptions by having four of the taped interviews transcribed by a bilingual interpreter in the United Kingdom (UK) and comparing the pairs of transcripts. Some differences were found, but the researchers were reassured that these differences had no meaningful effect on their research data, although they concluded that differences that did occur between the two interpretations resulted from overinterpretation of the women's own words or the level of precision and emphasis.

Eboh et al. (2007) suggested a method for assessing a translator's impact on interview transcripts by using back-translation of some interviews; that is, by having the translated transcript retranslated from the target language to the source language and then comparing the two source language versions.

In summary, it has been suggested that interpretation can have a significant impact on the research process and on the research findings. This influence should be examined by measuring the quality of interpretation. Only a small number of studies have mentioned this, and each has used a different method of assessing the quality of the interpretation work. Findings about the extent of the impact on the research process and hence on findings have varied.

The aim of this paper is to illustrate the use of a systematic comparative approach to examine in depth the impact of using lay volunteer interpreters (LVIs) in semistructured interviews on the collection of data, the potential impact on the validity and reliability of the resulting qualitative data, and the implications for subsequent analysis, using illustrative examples drawn from the authors' own research. The paper's objectives are to compare extracts from original transcripts (conducted with reliance on a LVI) with associated independent transcripts (conducted with reliance on a professional interpreter [PI]), highlighting any interpretation differences between the two transcripts and assessing the impact of various interpretations on the quality of data and subsequent analysis.

Background to the research study

This paper relates to a primary research study that explored the experience of postnatal care among migrant women from Middle Eastern countries and from European countries that joined the European Union in 2004, and compared their experiences with the experiences of indigenous British women. These women all gave birth at one tertiary UK maternity hospital (in NHS [National Health Services] Grampian, Scotland), where 4,000 to 5,000 babies are born every year. The study was carried out in the context of increasing immigration to this part of Scotland in recent years (General Register Office for Scotland, 2009). This migrant population forms part of a diverse set of communities with a range of different cultural backgrounds, religions, beliefs, languages, and attitudes, and with specific and different needs that might present challenges to service agencies, including new challenges to local NHS maternity services.

Following approval from the North of Scotland Research Ethics Committee, data were collected in semistructured interviews with 26 women: 8 born in European (E) countries, 5 born in Middle Eastern countries, and 13 British women semimatched by age, marital/partner status, parity (number of previous pregnancies), and educational attainment level with the 13 migrant women. The aim of the interviews was to explore the experience of postnatal care for migrant women from E countries and Middle Eastern countries and to highlight any differences regarding their needs, beliefs, and experiences in relation to postnatal care in comparison with indigenous British women.

The women were aged 16 years or older, had resided in the UK less than 5 years, had delivered at Aberdeen Maternity Hospital, and participated voluntarily. As the researcher (MA) shared the native language of the Middle Eastern women, the interviews were conducted in Arabic, translated into English, and the translations checked by the researcher. This paper focuses on the interviews with women from E countries because the researcher had no knowledge of those participants' native tongues and the interviews were therefore conducted with reliance on LVIs.

Whereas ideally a single interpreter would be used in a study requiring interpretation during interviews, this was not feasible in the present study because the four participants who requested an interpreter spoke three different languages. Interpreters were identified among the researcher's local colleagues and acquaintances who were originally from Poland, Latvia, and Lithuania, with the native tongues of those countries. All were also fluent in English, but none had been professionally trained as interpreters.

Methods

Sample

For the purpose of this paper, recruiting and interviewing methods will be discussed in detail for migrant women from E countries. This subset of the sample was recruited differently from the other women in the study because the researcher had no knowledge of the participants' native tongues and the interviews relied on LVIs, whereas other interviews were conducted either in English (the researcher's second language) or in Arabic (the researcher's first language).

Preparing for fieldwork

In preparation for fieldwork, all recruitment papers, including the cover letter, participant information sheet, consent form, demographic questionnaire, and reply sheet, were translated into seven languages, including Czech, Latvian, Lithuanian, Maltese, Polish, Slovak, and Slovene, by available bilingual lay volunteer translators who were originally from the respective countries. Advance translation of all papers was essential because of the need to recruit every eligible woman at short notice following delivery of her baby, regardless of her level of English proficiency.

To check whether the translated versions of the papers communicated the same meaning as the original English versions, another bilingual lay volunteer translator was found who translated the Czech version of the papers back into English. The researcher compared these back-translated papers with the original English papers. The main finding of this procedure was that although a few sentences were phrased differently from the original text, there was no significant effect on the text's meaning. This back-translation method is proposed by Ercikan (1998) as a means of dealing with translation-related problems and is a commonly used technique in cross-cultural research. Other lay bilingual volunteer translators were found who checked the Maltese, Slovak, and Slovene versions of papers and then corrected minor spelling and grammatical mistakes.

As preparation for the interview, the researcher briefly explained the aim of the research and the purpose of the interview to each LVI. The researcher then asked the LVI to read the English copy of the interview guideline to check whether any of the questions would be culturally unacceptable to the interviewee. As all LVIs were from nonmedical backgrounds, a few complex or technical medical terms were explained (e.g., normal delivery, forceps delivery, ventouse delivery, cesarean section, epidural anesthesia, pediatrician, and obstetrician). The researcher asked each LVI to interpret all the researcher's questions (given in English) and all the participant's answers (given in her native language), and to interpret as precisely as possible whatever was said in the interview.

As recommended by Murray and Wynne (2001), the researcher informed the LVIs about the importance of not discussing the information reported during the interview with any person, and that all information must be treated as strictly confidential. The tapes, consent forms, and fieldwork notebooks were kept by the researcher in a locked filing cabinet.

Conduct of the interviews

For the women who had requested interpreters at the recruitment stage, the LVIs were introduced, and the women consented verbally to their presence and role before the interview started. The researcher used a passive interpreter model (Figure 1), by which the researcher asked questions through the interpreter, who interpreted the participant's response for the researcher (Murray & Wynne, 2001; Pitchforth & van Teijlingen, 2005). This method allowed the researcher to be involved in the interview, to have a directive role, and to prompt the interpreter to probe for particular information.

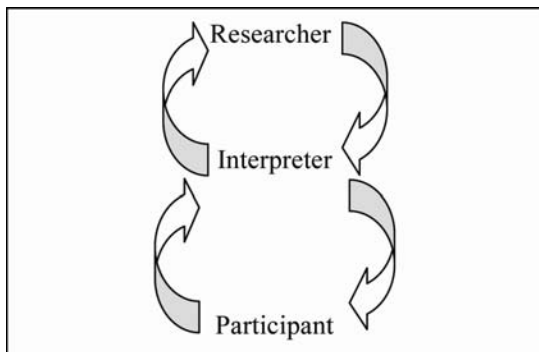
Some disadvantages of the passive model appeared; for instance, the interviews tended to be longer (from 75 to 100 minutes) than those conducted in English (from 35 to 100 minutes), and the interpreted interviews became disjointed due to the interpretation in both directions. The researcher tried to find another interpretation model that would be more efficient, such as the active interpreter model that was adopted in Pitchforth's study (Pitchforth & van Teijlingen, 2005). In that model the interpreter conducts the interview and provides the researcher with a summary at different points throughout the interview. This model can be used when the interpreter has become familiar with the aim of the interview and the interview questions after being involved in a few of them, but for this study each LVI was involved in only one interview, except the Polish LVI, who was involved in two.

In three types of situations during the interviews, the researcher was not confident that an LVI was interpreting everything being said by the interviewee or that the LVI had interpreted accurately the researcher's question. Examples of these situations include the following:

- when a participant gave an answer that was 3 or 4 minutes long in her native language but the LVI's English interpretation of the answer took only half a minute,
- when an interpreter gave the interpreted participant's answer to the researcher and that answer was clearly unrelated to the researcher's question, and
- when a conversation was carried on back and forth between a participant and an LVI in their native language.

Although the interpreters were asked several times to interpret every word being said, in both directions, the types of situation described above occurred several times during the interpreter-mediated interviews. The researcher therefore decided to involve PIs to reinterpret the translated portions of the interviews in the audio recordings.

Figure 1. Passive interpreter model



Reinterpretation process

Because of the importance of checking the accuracy and the validity of the interpretation, additional funding was secured and PIs were contacted: one Polish interpreter from Grampian Racial Equality Council, and one Lithuanian and one Latvian interpreter from Aberdeen City Council. These PIs, who also worked as professional translators, were asked to compare the English version of the recruitment papers with the papers in the target languages as an additional check. This comparison revealed only a few grammatical mistakes that were corrected, and several sentences were rephrased to be clear and well formed.

The PIs were asked to reinterpret portions of the taped interviews by listening to each interview and reinterpreting the researcher's question as posed by the LVI (in her native language), and the participant's answers (in her native language) into English. The Polish and Latvian interpreters asked the researcher to be present while they reinterpreted.

A tape player and separate recorder were prepared. Once the PI heard the researcher's question as interpreted and posed by the LVI, the recorder was switched on to record the PI's reinterpretation into English. The PI then listened to the participant's answer in her native language, and the recorder was switched on again to record the PI's reinterpretation of that answer into English. After completing this process for the Polish and Latvian interviews, the reinterpreted interviews were transcribed verbatim by the researcher.

The Lithuanian PI was unable to meet with the researcher to do the reinterpretation, so the original tapes and transcript of the Lithuanian interview were sent to her. She listened to the tapes, checked the transcript, and corrected a few mistakes, mainly in the lay interpretation of the participant's answers. Although this method of reinterpretation differed from the previous method, the Lithuanian PI judged that all the questions posed by the LVI closely matched the researcher's original questions, while in the Polish and Latvian interviews, the LVIs' interpretations were judged to be less accurate.

Following these procedures, the independent transcripts of the four interviews were compared with the original transcripts. This in-depth analysis process and the results are presented in the next section.

Results of the reinterpretation process

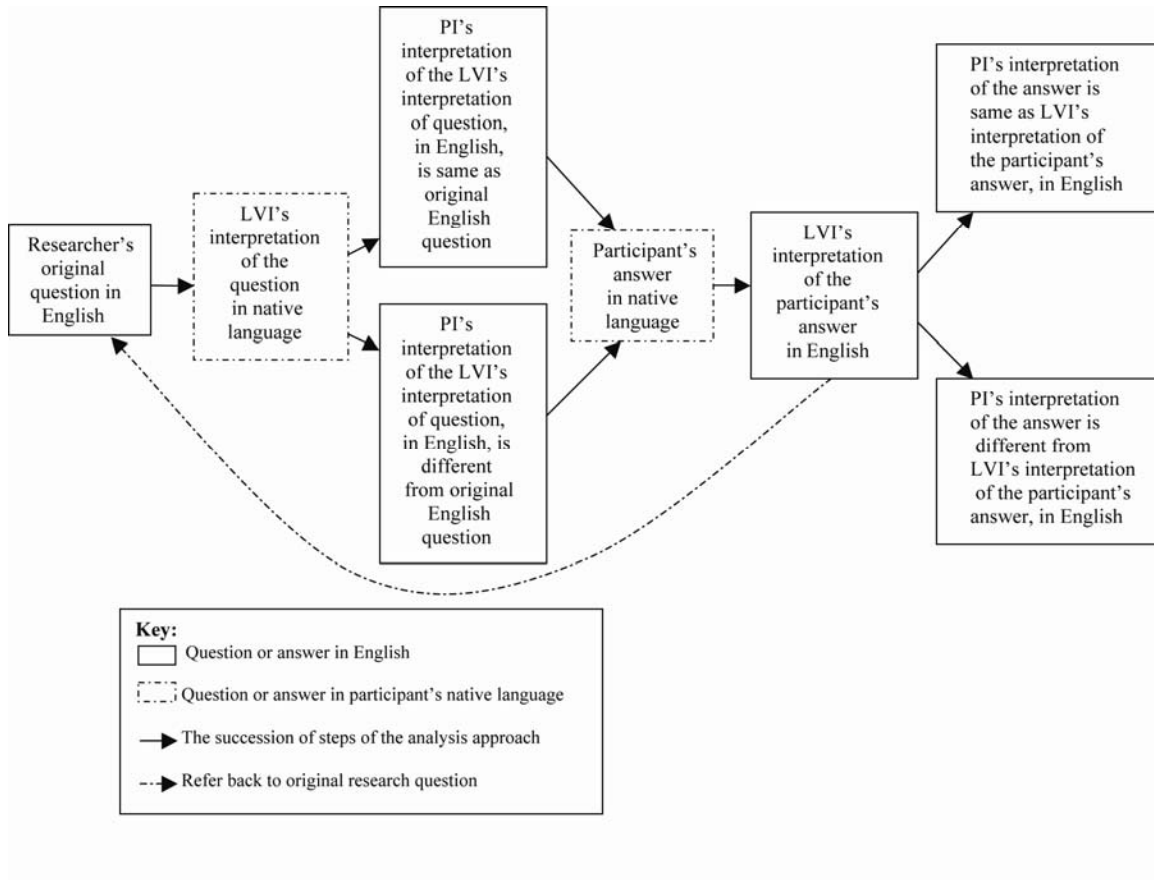
This section focuses on the analysis process and the main results of comparing the original transcripts of the four interviews conducted using LVIs with the independent transcripts following re-interpretation of those recorded interviews as re-interpreted by PIs. Figure 2 shows the systematic analytic approach that was adopted for comparing the original transcripts with the independent transcripts.

This analysis process is divided into three steps.

First step

The PI's interpretation of the LVI's interpretation of the researcher's question, in English, is compared with the researcher's original question, in English, to examine whether the PI's interpretations matched the researcher's questions (Figure 3).

Figure 2. Overall analysis approach



The main findings from conducting the first step were as follows.

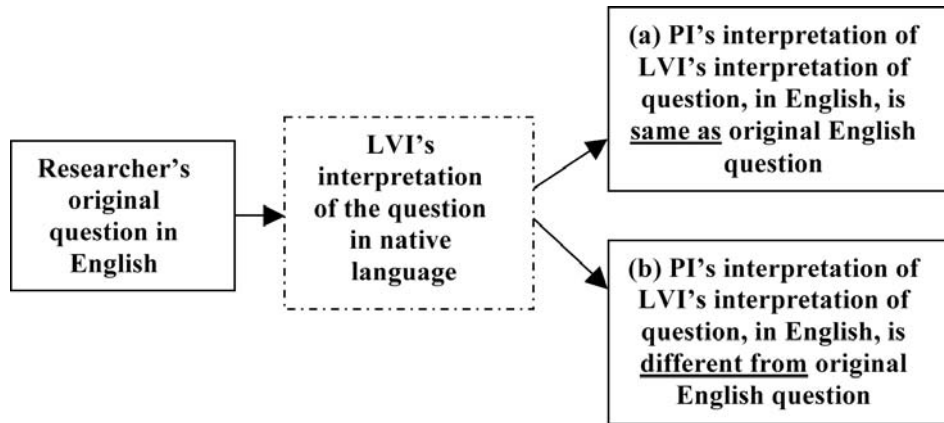
The great majority of the PIs' English reinterpretations of the questions, as posed by the LVIs in the native language, were judged to closely match the researcher's original question in English, indicating that the LVIs' questions represented the researcher's original questions with no modification of their meanings. For example:

Researcher's question: Do you have any special food in Poland that [a] woman after having her baby should eat or drink? (Original transcript)

PI's interpretation of the same question posed by the LVI: Do you have any special food in Poland what women after having baby eat it? (Independent transcript) (E MIGRANT 03)

These questions are considered to be consistent with the researcher's questions, accurate, and equivalent, and the researcher found that the subsequent LVI-interpreted answers were related to the original questions.

Figure 3. First step of analysis



Sometimes a PI's interpretation of an LVI's posed question did not closely match the researcher's original question. Such questions were nonequivalent to the researcher's schedule and interview intention, and were thus inaccurate. An example is:

Researcher's question: Can she tell us about the care she received when she was in the hospital, after she had her baby? (Original transcript)

PI's interpretation of the different question posed by the LVI: What did you learn in hospital regarding to taking care of your baby to looking after your baby? (Independent transcript) (E MIGRANT 01)

In such instances the subsequent answers did not relate to the original questions, although the divergent answers remained a source of further data.

Second step

This step considers instances where the questions posed by the LVI in the woman's native language were accurate and equivalent to the researcher's original question, in English. This step identified whether the PI's interpretation of the participant's answer matched or did not match the LVI's interpretation of the same answer (Figure 4).

Findings showed the following.

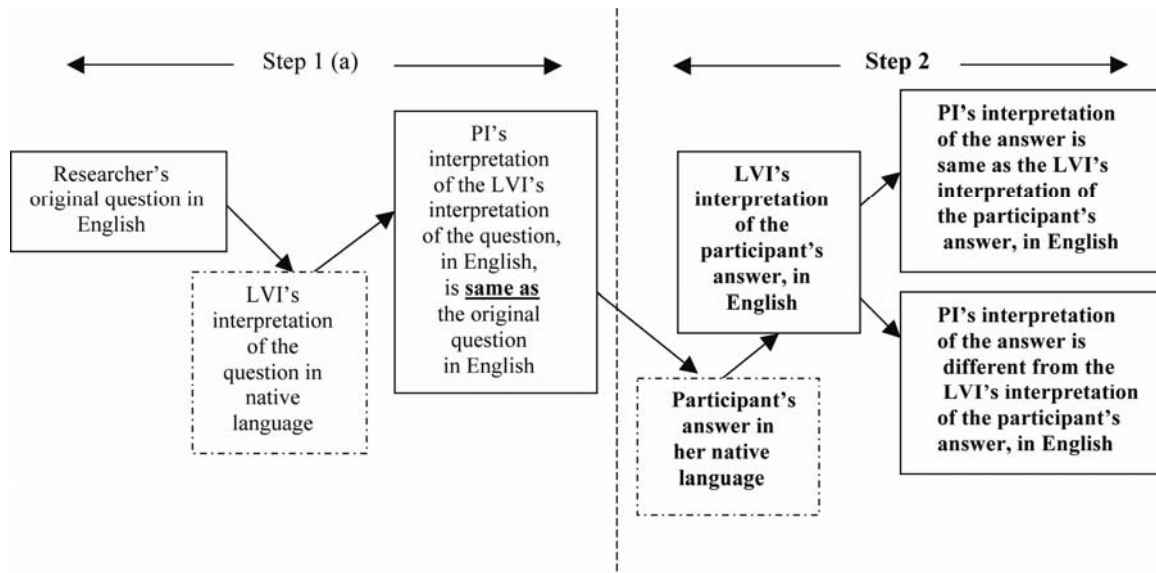
In many instances the PI's interpretation of the participant's answer was evaluated to be accurate and equivalent to the LVI's interpretation of the same answer, in English. For example:

Researcher's question: Why do you prefer [an] individual room? (Original transcript)

LVI's interpretation of the participant's answer: Because she could like a real peace, she could relax . . . or sleep. (Original transcript)

PI's interpretation of the same answer: Because I could uhm relax, I could probably better relax than bigger room. (Independent transcript) (E MIGRANT 06)

Figure 4. Second step of analysis



In a number of instances, the PI's interpretation was close but did not exactly match the LVI's interpretation into English of the participant's answer. This meant the professionally interpreted answers were inconsistent with the lay-interpreted answers. The inconsistency could simply relate to difference in nuances, so both answers could be inaccurate but related to the researcher's questions. Because the researcher could not understand the participant's native language, it was not possible to judge which interpretation accurately represented the participant's answer, but the differences were not meaningful. For instance:

Researcher's question: Did the midwife, during the pregnancy, tell you that there will be in the hospital [a] telephone line to use as interpreter? (Original transcript)

LVI's interpretation of the participant's answer: As far she remember she think that she didn't tell anything, you know, because she didn't speak English properly, maybe she is, she just can't, she didn't understand, you know, all the time or or maybe she just forgot, but she can't remember what she have told. (Original transcript)

PI's interpretation of the same answer: As far as she remember she think that they didn't tell her, but because of lack of understanding she can't be sure if somebody told her about interpreters or not. (Independent transcript) (E MIGRANT 05)

In a few instances, however, the professional and lay interpretations presented wide differences, even opposite meanings in controversial details, not just differences in nuance. In such cases both answers were nonequivalent but could be related to the researcher's original question, but which interpreted answer is equivalent to the participant's answer in her native language cannot be identified. For example:

Researcher's question: So was the midwife telling her and teaching her how to deal with the baby? (Original transcript)

LVI's interpretation of the participant's answer: Yes, they show her how to hold the baby; she thinks that it was good. (Original transcript)

PI's interpretation of the same answer: Yes, she showed her, she showed her how to hold her but she doesn't think it is good because in her opinion her midwife told her to hold the baby like a doll and she thinks that the baby is so weak and so small that she couldn't hold her how she showed it to her. (Independent transcript) (E MIGRANT 01)

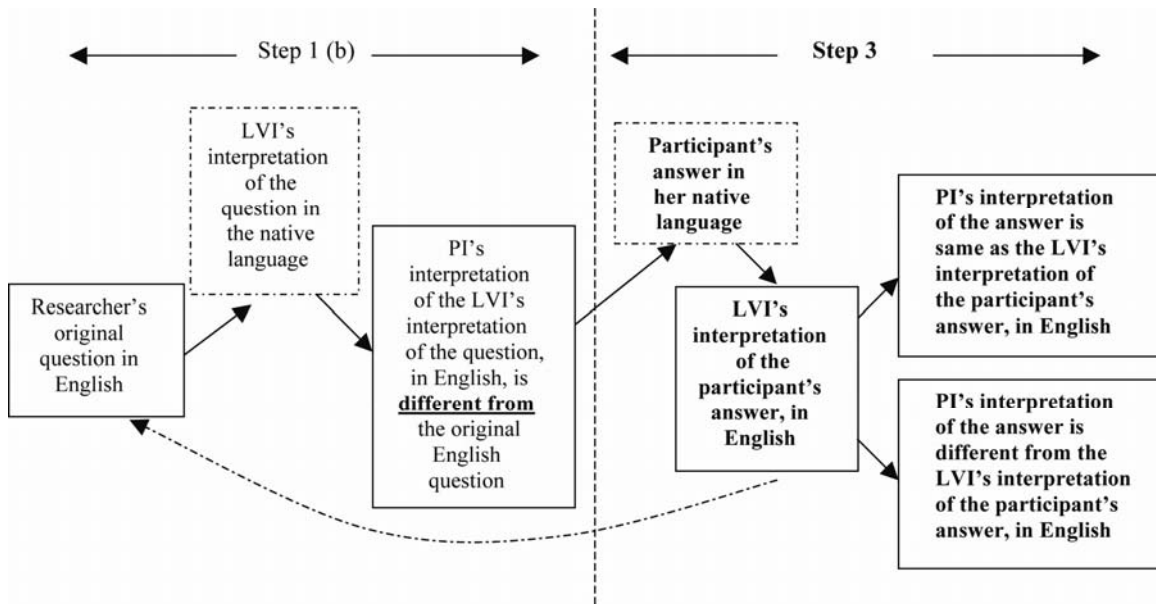
Third step

This step of analysis involved comparing the PI's and LVI's interpretations of the participant's answers in instances where the LVI had posed a question that was inaccurate and nonequivalent to the researcher's original question (Figure 5).

The main findings arising from the third analysis step include the following.

In a few instances, the LVI's and PI's interpreted answers were equivalent and could appear to be related to the original research question, even though the LVI posed a question that was different from the original question, as both interpreted answers appeared to be related to the original question and the question posed by the LVI. In such cases it is not possible to know whether the participant would have given the same answer, had the LVI's question had the same meaning as the researcher's question, and the reply is thus inaccurate. For example:

Figure 5. Third step of analysis



Researcher's question: How was your pregnancy? (Original transcript)

PI's interpretation of the different question posed by the LVI: How was your delivery? (Independent transcript)

LVI's interpretation of the participant's answer: Everything was fine, it wasn't a problem. (Original transcript)

PI's interpretation of the same answer: Everything was fine; I didn't have any problem with it. (Independent transcript) (E MIGRANT 03)

Rarely, both interpretations of an answer were equivalent but clearly not related to the researcher's original question. In such cases, the researcher recognized answers that appeared to be non sequiturs during the interview and could rephrase the question to obtain answers that related to the original questions.

Researcher's question: How many midwives and health visitors did she deal with during the postnatal period? Was it the same midwife and the same health visitor? (Original transcript)

PI's interpretation of the different question posed by the LVI: How many health visitors did visit you? (Independent transcript)

LVI's interpretation of the participant's answer: The same, two times. (Original transcript)

PI's interpretation of the same answer: There was only one and she came to me two times. (Independent transcript)

Researcher's next question: . . . and how many midwives? (Original transcript) (E MIGRANT 01)

The PIs' interpretations in several instances were weakly equivalent to the LVIs' interpretations of the participants' answers. Such pairs of interpreted answers are inconsistent, and the researcher was unable to decide which interpretation was closest to the participant's answer. Sometimes these differences related to the richness and completeness of the data, as in the following example:

Researcher's question: What do you think about hospital environment? What was good about it? . . . Was there any problem? (Original transcript)

PI's interpretation of the different question posed by the LVI: What did you like about being in a hospital? What was the good thing and what was the bad thing? (Independent transcript)

LVI's interpretation of the participant's answer: Overall everything was okay uhm except from visitors. It was not from her side but from the other, from other patients. Because people there were overall, all the time around and she needs some peace and make her kind of tiredness. (Original transcript)

PI's interpretation of the same answer: I had few problems there. Wasn't problems in general but it was just hot, there was so much visitors, you want to relax, but it was so many visitors visiting. (Independent transcript) (E MIGRANT 06)

In a few instances, the professional and lay interpretations of the answers diverged widely. In these cases both answers are considered inaccurate, nonequivalent, and unrelated to the original question. The following is an example:

Researcher's question: So how did you find the food and other services in the hospital? (Original transcript)

PI's interpretation of the different question posed by the LVI: How did you find another food outside of hospital that you have to eat after delivery? (Independent transcript)

LVI's interpretation of the participant's answer: Hospital staff taught her what she should eat, you know, and what she shouldn't and this is uhm information from them, just only. (Original transcript)

PI's interpretation of the different answer: I asked my friends who already have the babies what I should eat and what not. (Independent transcript) (E MIGRANT 03)

Occasionally when a question posed by an LVI appeared to differ from the original question, the different interpretations of the participants' answers were both related to the researcher's original questions, as the participant asked clarifying questions, but they had to be treated as equivalent. In two examples the difference related to the richness of data. This is one of those:

Researcher's question: After you moved to Aberdeen hospital, how was the labour there? (Original transcript)

PI's interpretation of the different question posed by LVI: How was the Aberdeen hospital in general? (Independent transcript)

LVI's interpretation of the participant's clarification question: You mean like a procedure or (Original transcript)

Researcher's rephrased question: Aha, yea. When she arrived to the Aberdeen hospital how was the labour and delivery there? (Original transcript)

LVI's interpretation of the participant's answer: Aberdeen was very great. In Aberdeen everything was great, because in first instance they gave her medication, epidu, epidural. It was like in her back and they took off pain, so they have every where, so. (Original transcript)

PI's interpretation of the same answer: Everything was fine, everything was okay. They asked me straight away do I need any painkillers, something like that, uhm they cared about me. I had an injection in the back and in the leg. I was monitored all the time and I felt, I felt myself very well. I was told baby is fine and everything was happened very quick and very good. The attitude after delivery was a bit different, uhm, uhm that is, was it. (Independent transcript) (E MIGRANT 06)

Finally, only in one example, and following clarification of the question for the participant, widely different answers emerged from the two interpretations (lay and professional interpretations). Either interpretation could be related to, but both were inaccurate and nonequivalent to, the original question. However, which interpreted answer truly represents the participant's answer in her native language remains uncertain.

Researcher's question: Did she try to ask the midwife before going home, to give her more information, to tell her how to look after her baby? (Original transcript)

PI's interpretation of the question posed by LVI: Did you ask the midwife when you were pregnant about more information how to look after your baby? (Independent transcript)

PI's interpretation of the participant-LVI conversation: This woman is confused, and she asked the interpreter, "Before delivery or when I went home from hospital?" And the lay interpreter said, "When you go home." (Independent transcript)

LVI's interpretation of the participant's answer: Practice is the best thing, you know, she think that why, no information is, uh uh, this is true, information are good, but practice is the best. (Original transcript)

PI's interpretation of the same answer: She didn't ask about it because bringing up children here is quite different than in Poland so she knows she knew what she knew and that is it. (Independent transcript) (E MIGRANT 01)

Discussion

In this section a summary of the findings using this procedure and a comparison with the existing literature will be presented, and recommendations and wider implications will be explored. Conducting interviews with reliance on interpreters can enable the researcher to hear the seldom heard voices of migrant populations who do not speak the recipient country's language. In this study a systematic comparative approach was developed and successfully applied to examine in detail LVIs' impact on the quality of data and subsequent analysis. It was found that involving LVIs affected the quality of small portions of data and potentially the subsequent analysis, and further observations have been made regarding the impact on practical aspects of conducting the research.

Impact on the quality of data and subsequent analysis

Wallin and Ahlström (2006) stated that if the interviewer and interpreter have different native languages and one shared language that the interpreter and the participants do not have in common, a potential threat to reliability exists at various points in the interview process. They also mention that further attention should be paid to the interpreter's impact on the findings. In the present study the majority of questions posed by LVIs were reliable, and as a result, the subsequent interpreted answers were usually reliable and valid in relation to the researcher's original question. The researcher considered these data valid and reliable, and they will be used in the subsequent analysis.

In a few instances, a pair of interpreted answers was unreliable (due to either opposite meanings in controversial details, or differences in nuances), but both answers could be valid in relation to the researcher's original question. In such cases the researcher considered the professionally interpreted answers as valid, and these will be used in the subsequent analysis.

The reason underpinning the assumption that the valid answers were those that were professionally interpreted was that PIs were judged as likely to be more expert because they had been trained and had experience in interpretation. Clearly, the judgement of which interpreted answers (the LVI's or the PI's) represented closer matches with the participants' answers in their

native languages could not be made by the researcher who had no knowledge of the participants' native languages. Neither were there appreciable differences between LVIs' and PIs' profiles in terms of age, gender, migrant status and cultural background, so both groups also complied with the recommendation of Kapborg and Berterö (2002) that validity can be strengthened if the interpreter shares the participant's culture.

Sometimes the researcher's questions as interpreted were unreliable. In a small number of these cases the interpreted responses were reliable, but in others they were not, either because the richness of the data varied between the two interpreted responses or because those two interpretations had opposite meanings. In all these cases, the responses are considered invalid in relation to the researcher's question and will be excluded from subsequent analysis.

Pitchforth and van Teijlingen (2005) found some differences after having interviews re-transcribed by a professional interpreter. These differences related to the level of precision (accuracy in representing meaning) and emphasis (nuances). However, the authors considered that these differences in translations, in their study, were not as significant as they might be in other disciplines, and they used the data in subsequent analysis.

A similar view was expressed by Kapborg and Berterö (2002), who mentioned that threats to validity arose when an interpreter interpreted a question from English to the target language. As the researchers in both these studies did not understand the target language, it was not possible for them to control the situation. Another threat to validity was noted when an interpreter interpreted interviewees' answers from the target language to English. Both pairs of researchers did not know whether interpreters had interpreted responses fully, summarized them, and/or modified them. Although Kapborg and Berterö identified these threats, they did not indicate whether the affected data were used in their analysis.

The first type of threat, as occurred when a Swedish researcher asked a question in English to an interpreter who translated it into a third language (Kapborg & Berterö, 2002), was not found in the present study. The interview guideline for these semistructured interviews was based on literature in maternity services and was reviewed by native English-speaking academics and clinical staff in the maternity services field. In addition, the researcher herself had knowledge and experience in this field.

Rarely, an interpreted response was reliable although invalid in relation to the researcher's original question; it was valid in relation to the researcher's rephrased question. It was decided that these responses will be used in subsequent analysis. More rarely, when the two interpretations of a response were unreliable, one was found to be valid in relation to the researcher's original question as the participant had asked for clarification. In such cases the professionally interpreted responses will be used in subsequent analysis.

Based on this systematic analysis, it can be concluded that only a very small portion of the interview data was invalid and unreliable, and such data will be excluded from subsequent analysis, but in other studies this could be a major issue if there is a higher proportion of instances where validity and reliability are doubtful, and this could have a significant (and potentially unrecognized) impact on the quality of data.

Impact on the practical issues of conducting research

The researcher noticed the impact of using interpreters at an early stage of the research. For instance, while the researcher was arranging and coordinating the interpreter-mediated interview dates and times, it was more difficult and more time consuming than for the interviews conducted without interpreters. Because three different individuals were involved in these interviews, the times and dates had to be convenient to all parties. In addition, it was more expensive and time consuming to coordinate and provide transport for the LVIs to go to the participants' home. Although this might not be an issue in some studies, it is worth mentioning as a point that should be considered in developing grant proposals and budgets (Eboh et al., 2007).

Another effect was that the interviews were longer and tended to become disjointed, and the researcher had less control than in direct interviews without interpreters, due to using a passive interpreter model and conducting interpretations in both directions. Pitchforth and van Teijlingen (2005) suggested that using a passive model introduced tensions into their interviews and was burdensome for the participants, as they and their families were taken away from their work to attend the interviews. However, in the present study the women were at home on maternity leave.

Another reason these interviews were more time consuming was that the researcher sometimes had to rephrase a question several times to get a valid response, when it was obvious that an interpreted response was invalid in relation to the original question. In addition, more time was required when participants asked clarifying questions, when a question posed by the LVI was inconsistent with the researcher's original question, as became evident from the interpreted participant's reply. This indicated that sometimes participants themselves had some understanding of the original research question in English.

As interviews became longer, several participants asked to take breaks to feed the baby, to provide care for the baby, or to drink coffee or tea. The researcher also sensed that the participants became rushed in answering the last few questions as they were becoming bored, which led her to be concerned about the quality of data from these rushed questions. As Kapborg and Berterö (2002) concluded, involving interpreters in interviews is tiring for all parties, and people cannot continue for a very long time without a break.

Recommendations and wider implications

Although the findings in this study related to the topic of this paper demonstrate that the work of these LVIs nearly always conveyed accurately the words and meaning of the interviewer and interviewees, in future research we would recommend more training and practice for LVIs with the interviewer before conducting interviews wherever possible. Such training could include meetings between the LVIs and the researcher to discuss the overall aim of the study, rehearsing the use of interview guidelines, and clarification of the LVI's role. A further recommendation is to use the systematic approach presented in this paper as a cost-effective tool to check the quality of LVIs' interpretations.

A wider implication of this study is that the developed systematic approach presented in this paper is not just relevant to this particular field, research interviews; it has wider relevance and lessons for other services and agency settings that undertake important information exchanges with non-English-speaking interviewees. In particular, the importance of ensuring the validity and reliability of communication in the interpretation process is apparent in the literature regarding working with interpreters in health and legal fields (Eades, 2003; Lee, 1997; Tribe, 2005).

Conclusion

It is impossible for interpreters to provide exact-match translation of interview dialogue, especially in the context of an active interview (Murray & Wynne, 2001). In addition, as interpreters have their own backgrounds, experiences, and cultures, they inevitably produce texts from their own viewpoints (Temple, 2002). Our findings support previous research that has shown that careful attention therefore should be paid to the effect of an interpreter on the quality of data, on the analysis process, and on the total research process, and the method developed and explained here offers a means for addressing this issue.

In addition, conducting this exercise of reinterpreting the interviews has given the researcher confidence that the majority of the interview data were reasonably accurate (valid and reliable), and it has made clear which parts contain problems in interpretation and which parts are safe to use in the subsequent analysis and interpretation of findings. Not knowing which portions of data were inaccurate could have had a serious but unrecognized effect on the soundness of the research product, if quotes selected for subsequent analysis had included misrepresentation.

This systematic analytic approach highlights that researchers who involve interpreters in their research should be cautious about the quality of their work, and do not assume that the work is accurate merely because the interpreter's native language is the same as the participant's.

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