Insights from Research on Cross-Cultural Validation of Health-Related Questionnaires: The Role of Bilingual Project Workers and Lay Participants

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Insights from Research on Cross-Cultural Validation of Health-Related Questionnaires

The Role of Bilingual Project Workers and Lay Participants

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abstract: This article discusses the recruitment and training of bilingual project workers and their role in data gathering; the level of comprehension of the interviewees with regard to the nature of the task and its alien nature; the contribution of social customs and expectations; the vagaries of language; the researchers' level of comprehension of data collected across a range of languages; the feelings of loss of control by the researchers over the research process; and issues of communication with bilingual project workers. The authors draw on two studies designed to assess the adequacy of questionnaire translations from English into four ethnic minority languages: Cantonese, Punjabi, Urdu and Sylheti. Bilingual project workers were recruited to carry out interviews and focus groups with the lay communities and to feed back results in English to the researchers. The authors conclude that researchers should be aware of the influence of social and contextual factors when carrying out research with ethnic minority participants mediated by bilingual project workers.

keywords: bilingual project workers ♦ cross-cultural validation ♦ ethnicity ♦ questionnaires ♦ self-report

Introduction

There are barriers to collecting reliable information on ethnic minority groups; some newer and older immigrants to the UK, particularly women, have little or no competency in English (Carr-Hill et al., 1996; Health Education Authority, 2000). Much of the planning of health care is based
upon data from studies involving self-report by participants, either by interview or questionnaire. Such studies are mostly designed, validated and carried out by English speakers. Thus, barriers to collecting accurate data include linguistic and cultural differences and the assumption that research methods developed in English-speaking populations are applicable to ethnic minority groups.

Data collection tools such as interview schedules and questionnaires are produced with varying degrees of refinement. Some undergo extensive testing for validity, responsiveness and reliability; others little or none. There is much research in the social sciences on the interpretation of responses to oral and written questions and the cognitive processes to which these give rise. This research is not commonly applied by epidemiologists and health researchers (Hunt and Bhopal, 2004). The general attitude has been that what is suitable for native English speakers is suitable for others with minimum adaptation.

In the health research and health care fields translation/adaptation of interview schedules and questionnaires from English into other languages has suffered from cultural hegemony, failure to ensure that the phenomenon of interest is present in all target groups, lack of salience of content, the non-equivalence of concepts, assumptions about willingness to disclose certain types of information and the use of levels of language not easily comprehensible to the less well-educated (Hunt and Bhopal, 2004).

Methodologies for achieving appropriate translations involve a mixture of professional and lay consultations and complex statistical procedures (Bullinger et al., 1993; Hunt, 1998). However, it is rare to have reports of the context and decisions involved in this process. It has rarely been acknowledged that the process of cross-cultural adaptation of self-report instruments consists of a series of social interactions that may, or may not, be consonant with traditional research methods.

This article discusses the processes involved in two studies designed to assess the adequacy of health-related questionnaire translations from English into ethnic minority languages. The first project assessed the adequacy of Punjabi and Cantonese translations of the Rose Angina Questionnaire (RAQ project) (Hanna and Bhopal, 2004). A subsequent project further developed the methods used in the RAQ project and examined Punjabi, Cantonese, Sylheti and Urdu translations of tobacco-related questions (tobacco project) (Hanna et al., 2006). The overall aim of each study is as follows:

RAQ project

- To assess the need for, and feasibility of, modifying the RAQ to produce a cross-culturally valid angina screening tool for use in Pakistani Punjabi, Chinese Cantonese and European-origin English speakers.
Tobacco project

- To develop, through qualitative research with Indian Sikh Punjabi, Pakistani Urdu, Bangladeshi Sylheti and Chinese Cantonese speakers, a cross-culturally valid instrument that can be used in Scottish surveys to collect high quality data on the use of tobacco and related substances.

Questionnaires translated from English were assessed for cultural and linguistic equivalence by consulting with ethnic minority lay populations (some monolingual, some bilingual) via interviews and focus groups carried out by bilingual project workers. Nationally representative multiethnic survey research in Britain requires several different language versions of its survey instruments (e.g. Hindi, Gujarati, Bengali, Sylheti, Punjabi, Urdu, Cantonese, Mandarin and others). Confirmation of cross-cultural validity requires that each language version of a questionnaire is comparable with every other (Hunt, 1998). These two projects avoided the pitfalls of using the English version as the sole reference version by assessing the acceptability and equivalence of three (RAQ project) and five (tobacco project) languages (including English) simultaneously. This helped avoid two different language versions being similar in meaning to the English but different in meaning to each other. We discovered a number of key cultural and linguistic errors in the questionnaires that showed them to be lacking in accuracy and equivalence for use cross-culturally. These findings illustrated the central importance of consulting with the lay community. However, the process was complex and time consuming, and we found little literature on the challenges encountered in carrying out research of this nature.

This article examines the recruitment and role of bilingual project workers (community members with little or no previous research experience), the influences and beliefs of research participants (lay members of the communities under study), and the researchers’ (academic or professional research staff’s) own level of comprehension of the linguistic and cultural aspects of the research process. We reflect on the influences of social customs and expectations on data collection, and on the difficulties in achieving effective communication between researchers, bilingual project workers and research participants.

Appointing and Training Bilingual Project Workers

As these research projects required interviewing lay people in their own language, it was essential to employ bilingual project workers. In the spirit of participatory research, community involvement and authenticity, recruitment was from the ethnic communities concerned. The tasks and
responsibilities required of bilingual project workers on each project can be summarized as follows:

**RAQ project**

- To carry out brief telephone screening interviews with members of their communities.
- To carry out audiotaped semi-structured qualitative interviews with lay participants about cardiovascular health beliefs and experience.
- To administer an RAQ assessment exercise to gauge appropriateness of translations.
- In collaboration with a co-worker, to orally interpret into English, and assist in descriptive analysis of, interview data (in discussion with the English-speaking researcher).

**Tobacco project**

- To recruit a panel of lay participants from their community.
- To carry out audiotaped interviews with lay participants assessing cultural and linguistic acceptability of tobacco-related questions.
- To record written notes of participants’ views and suggestions and to feed back these findings to the English-speaking researcher.
- To assist in the production of modified questionnaires.
- To recruit and administer questionnaires to a field testing sample.
- To participate in a group discussion with the multiethnic project team to ensure equivalence of all language versions of the modified questionnaires.

**Recruitment**

Posts were advertised through community groups, places of worship, job centres, the local health board and other relevant organizations. Bilingual project workers fluent in English and one or more ethnic minority languages were employed: two Punjabi and two Cantonese speakers for the RAQ study; an Urdu, a Punjabi, a Cantonese and a Sylheti speaker for the tobacco study. During the tobacco questionnaire project, particular difficulty was encountered in locating a Sylheti-speaking bilingual project worker for research within the Bangladeshi community.

**Language Testing**

For the RAQ project, shortlisted applicants took a brief language test. The need for such tests before appointing lay bilingual project workers for research
support posts has been reported (Judith Bush, 2000, pers. comm.; Small et al., 1999b). In practice, these tests were problematic to develop and implement; for example, it was difficult to locate an institution that could design and deliver appropriate tests. Finally, a local institution, offering courses leading to the Institute of Linguists’ Diploma for Public Service Interpreting (DPSI), developed a test administered by its staff to the shortlisted applicants at interview. A mock interview was recorded in Punjabi or Cantonese, in which an actor gave information about health problems and described the type, location and duration of pain. Applicants listened to this prerecorded interview and completed a table indicating the relevant information they were to translate. They gave an oral summary of the role-play in English to the examiner. The examiner graded the candidate’s performance in four skills: completeness, accuracy and appropriateness, vocabulary and syntax, and terminology.

However, these language tests illustrated the difficulty of appointing bilingual project workers in locations where the pool of appropriately qualified staff may be small. The person approached by the local organization to administer the Cantonese test was also one of the applicants for the bilingual project worker post. It also proved difficult to find a suitable person to administer the Punjabi test to Pakistani participants, and an Indian Punjabi speaker was employed to do so. This was not ideal as cultural and linguistic differences exist between these two subgroups of Punjabi speakers, and regional variation in language use and the semantic nuances and variations between different cultural groups speaking the same language are important. Interpreting services often have to ‘make do’ with someone who is not entirely fluent in a regional variant but who speaks the language. For example, in Edinburgh at the time of the research, Bengali speakers commonly interpreted for Bangladeshi Sylheti speakers. The Bengali speaker can understand the Sylheti speaker and vice versa, but neither is entirely fluent in each other’s language. Collaborators based in the service sector may have a pragmatic approach to interpretation and translation, which may jeopardize the integrity of health-related cross-cultural validation research; one applicant who passed the DPSI did not pass our language test. Given these difficulties, the tobacco project did not use language tests. Appointees appeared from their CV to have sufficient language and cultural skills.

Training
Bilingual project workers had little or no prior research experience and a brief training programme was developed to provide:

1. a thorough grounding in the background and aims of the project;
2. discussion of the interview and/or focus group topic guide;
3. interviewing skills and practice;
4. discussion of practical, safety and ethical issues.
Bilingual project workers were given a training pack for reference, including all relevant theory and background information, study documents and task checklists. Some training materials drew heavily on those used in a training programme for community researchers (Bush et al., 2003; White et al., 2002). On the RAQ project, bilingual workers also listened to tapes of the researcher carrying out interviews to illustrate good (and bad) practice, and carried out mock interviews with each other to identify any issues, problems or questions. As illustrated later, nonetheless, the inability of the researcher to speak the languages in question meant that it was difficult to ensure that appropriate interview and questioning techniques were being used in the field.

Throughout training, the participatory, reflexive nature of bilingual project workers’ roles was emphasized, and it was stressed that their cultural insight was vital in providing a ‘bridge’ between participants’ voices and the perspective of the English-speaking researcher. Previous literature on how to train bicultural interviewers has placed an emphasis on providing time to read and discuss relevant academic papers (Small et al., 1999a). However, the RAQ project showed that this process, while theoretically desirable, did not yield the expected dividends. Feedback from bilingual project workers indicated that such training sessions were too academic. Given the time and budget constraints in both studies, bilingual project workers received insufficient training to lead to a qualification, such as had been offered elsewhere (Bush et al., 2003). Much of the in-depth discussion with bilingual project workers concerning qualitative methodology and interview techniques, epidemiology, sampling and cross-cultural measurement seemed superfluous. For the tobacco project, therefore, a simpler and more prescriptive training schedule explained the importance of the study and the aims of the lay consultation process. Bilingual project workers were provided with clear typed versions of interview schedules with space in which to write participants’ answers. We found this less abstract version of the training programme to be more efficient and practical.

**Retention of Staff**

In both projects, one bilingual project worker withdrew after completing a small number of interviews; replacement bilingual project workers were appointed from the pool of shortlisted candidates.

**Influences on Data Collection: Bilingual Project Workers, Lay Participants and Research Methods**

During the first research study (RAQ project), general practice-based participant recruitment was not very effective (Hanna and Bhopal, 2006) and
bilingual project workers therefore recruited additional participants via community organizations, personal contacts and snowball sampling. During the second study (tobacco project), a key task for bilingual project workers was the recruitment of an age- and gender-stratified panel of lay people from their community to be consulted on the questionnaires, and of a further sample of lay members to field test the resulting questionnaires.

Bilingual project workers, therefore, played a fundamental role in data collection and construction. In addition to recruiting participants, often by personal contacts, they were responsible for presenting the project to the participant in the field and carried out one-to-one interviews and field testing alone without a researcher present (researchers were present to assist the bilingual project worker with the majority of focus group discussions). As the studies progressed, it became clear that the understandings brought to the research by both participants and bilingual project workers, and the interactions between these two groups, shaped profoundly the data generated, as illustrated later.

The Challenges of Lay Assessment of Questionnaire Appropriateness

The recommendation in the literature to involve monolingual lay people in assessing cultural and linguistic appropriateness of questionnaires (Hunt, 1998) was difficult to implement. The first issue was bilingual project workers’ literacy. Among many Pakistani-origin people in Britain, and especially in Scotland, Urdu is the language of literacy while Punjabi is commonly spoken in the home. So, Pakistani-origin project workers were unable to read or write Punjabi script (although if literate in Urdu, Pakistani Punjabi speakers can read/write Punjabi written in Urdu script). This was problematic in the RAQ project when they were required to read aloud pre-existing Punjabi translations of the questionnaire, available only in Punjabi script. A community contact able to read Punjabi made audio-recordings of the questions that were then memorized by bilingual project workers. Literacy in the relevant language is important to carry out robust validation work on questionnaire items. Subsequently, the ability to read and write a specific ethnic minority language was included as an essential criterion for employment on the tobacco project.

Second, standardized administration of the questionnaire assessment task was problematic, despite the training given. Bilingual project workers had been instructed to read out each questionnaire item and then ask the participant what their opinion of the question was, ask whether they could think of a better way of asking the question, probe the participant’s understanding of each word and phrase in more depth, ask whether they felt that most people from their community would understand the question, and ask whether the question was culturally acceptable. However, bilingual
project workers were often uncomfortable with this task and sometimes did not understand fully the research protocol. For example, in the RAQ project, one bilingual project worker asked their first two interviewees to provide answers to the RAQ items rather than to assess the adequacy of the translation. Subsequently, during the tobacco project, the researchers took great care to explain this exercise more clearly and to emphasize to bilingual project workers that participants were being asked not to answer the question but to comment on its understandability and cultural acceptability.

In addition, late into the RAQ project the researcher became aware, via a replacement bilingual project worker, that one bilingual project worker was not using the standard Punjabi translations of RAQ items, but was elaborating on or paraphrasing the questions, sometimes introducing English or Urdu words; for example, replacing the Punjabi RAQ translation for ‘severe’ (as in ‘severe pain’), ‘sakht’, with an Urdu word, ‘shadeed’. Clearly the importance of strict adherence to pre-existing RAQ translations, in order to rigorously assess their adequacy, had not been communicated adequately to the bilingual project worker, and this introduced unnecessary variation. Also, the rigour with which specific words and phrases were probed varied between bilingual project workers and between interviews, reducing the overall effectiveness of the studies. It is important for researchers not to assume that inexperienced bilingual project workers, who are not expert in the research methods being used, will easily understand complex or unfamiliar tasks. It is the researchers’ responsibility to explain the research tasks simply and clearly and to monitor they are being correctly carried out.

Complicating the process of assessing questionnaire items was the fact that Cantonese and Sylheti are oral, not written, languages. Oral Sylheti questions were audio-recorded from English into Sylheti by the bilingual project worker, then written down phonetically using the English script for standardized administration. While Cantonese questions had been translated by previous national surveys, such as the Fourth National Survey (Nazroo, 1997) and the Health and Lifestyles of the Chinese (Sprotson et al., 1999), the questions had been recorded in written Chinese using a simplified script. According to our Cantonese-speaking bilingual project worker, simplified Chinese writing is more appropriate for Mandarin than Cantonese speakers. To meet the needs of our Cantonese speakers, the bilingual project worker converted the simplified Chinese writing into a more appropriate form for Cantonese speakers. Unfortunately, without the researchers’ knowledge, the bilingual project worker in several interviews incorrectly used these written questions as probes rather than the oral versions. As these written questions did not make sense in spoken Cantonese, participants did not understand them, or laughed at the formal and unfamiliar tone. The issue was resolved by the bilingual project worker translating the
English items directly into oral Cantonese (there were no such existing oral questions).

These examples illustrate that it is difficult for a researcher to monitor the rigour of questionnaire assessment techniques in unfamiliar languages. Quality control of multilingual research teams can therefore be problematic. Measures need to be taken to ensure questions are being asked as agreed. The best way of ensuring adequacy of data collection may be to list the exact questions and probes bilingual project workers must ask about each item, and to emphasize the importance of strict and rigorous adherence to the interview schedule even if the task is repetitive or uncomfortable. A second translator is vital to point out discrepancies. Ideally, the team overseeing research such as this should contain researchers bilingual in the requisite languages. During the tobacco project, a senior member of the research team (RSB) was sufficiently familiar with Punjabi and Urdu to review interview tapes and participate in the male focus groups; this provided important monitoring and clarification. A solely English-speaking researcher will be unaware of the specifics of the exchange.

Another barrier to the task of eliciting comments on questionnaire item appropriateness is lack of understanding by research participants. They felt the task was repetitive and confusing; found it difficult to appreciate that they were being asked to comment on the understandability and acceptability of the questions in their language; and often spontaneously answered the question instead. This may have been because participants saw that the questions were not problematic and therefore found no comment. Some participants continued to answer the questions directly even when reminded repeatedly that they were not being asked to do so. Some participants became tired, annoyed and confused by the task, such as the Chinese participant who snapped, ‘I don’t understand your stuff, Miss!’ to the bilingual project worker. This helps explain some of the bilingual project workers’ discomfort with the task.

In the RAQ project, it was noted that asking some white English speakers to comment on their understanding of common phrases used in questions was also met with bewilderment. Lay people are unused to giving their opinion on such matters, and consider them the domain of professionals. If the questionnaire uses straightforward language and common phrases, the task may seem simplistic, perhaps irrelevant. Research using ‘think aloud’ interviews with low-income African American, Chinese, Latina and Vietnamese women in California found similar results (Pasick et al., 2001). Bilingual project workers should explain to participants that translations are often inappropriate and that it is important to find out how people from their community speak about and understand questions about the topic under study. Participants need to know that their opinions are both valid and valuable. Lay people may be reluctant to correct the wording of questions because
they do not see themselves as qualified to do so. One participant, after suggesting a better way to phrase a question, told the bilingual project worker not to correct it ‘because maybe it [i.e. the original] was OK’. When participants did not suggest changes, this could be due to a genuine acceptance of the question, an inability to think of a preferable alternative, or insufficient probing by the bilingual project worker. We also found that certain ways of asking a question could elicit a response, while others did not. For example, when asked why she thought an interviewer would be asking her a question about severe pain in her chest, a Pakistani participant was unable to answer the question. However, when the bilingual project worker asked the participant why a doctor would ask her a similar question, the participant responded that the doctor would be asking about a heart attack. This illustrates how the context of asking a question can influence the answer given. The answers given in a particular context may vary cross-culturally.

In addition, variations in language are vital to consider in questionnaire assessment tasks or when administering questionnaires. Most Punjabi- or Urdu-speaking participants rarely used a single language during data collection, and commonly used these languages and English, or even all three. As mentioned previously, the Punjabi spoken by Indian-origin Sikhs living in the UK differs importantly from that spoken by Pakistani-origin people; also, ethnic minority languages spoken in the UK may be of the type spoken at the time of immigration and not the contemporary language spoken in the country of origin. For example, in the tobacco project we found that the translation of ‘regularly’ (as in ‘Did you smoke cigarettes regularly?’) in existing Punjabi questions was ‘bakaidah’. The majority of Sikh participants did not understand this word and suggested replacing it with the word ‘lagatar’, a more understandable translation of ‘regularly’. ‘Bakaidah’ was more likely to be used by modern Indians or Pakistanis, whose Punjabi has more Hindi and Urdu influences, whereas the Punjabi spoken by Scottish Sikhs is more traditional. A single Punjabi translation of a questionnaire is not appropriate for both groups. Researchers may not be aware of different forms of the same language used, and should not assume that ethnic groups are culturally or linguistically homogeneous. Survey translators and interpreters must be aware of these subtleties to ensure meaningful data gathering. Acculturation of ethnic minorities may also influence the research process.

The Challenges of Qualitative Interviews in Multiethnic Research

The aforementioned recommendations may also apply to other types of data collection by bilingual project workers. For example, the RAQ project included collection of more personal qualitative data, using a semi-structured topic guide, on lay participants’ cardiovascular and related health beliefs and experiences. Despite the researcher’s attempts to standardize
interview protocols across ethnic groups to maximize comparability, it emerged through feedback and analysis sessions that distinct interviewing techniques and foci were being employed. Each bilingual project worker’s understanding of the project varied, reflected in the way they presented the research to their interviewees, the terminology they used and the depth in which they covered the key interview topic areas.

Relationships between bilingual project worker and participant affect the information disclosed. The research was in Edinburgh, where there are relatively small ethnic minority communities (2384 Indian, 3929 Pakistani, 636 Bangladeshi, 1202 other South Asian and 3535 Chinese in 2001). Given the small size of the communities involved and the centrality of the bilingual project workers to recruitment, a pre-existing social, personal or professional relationship between bilingual project worker and participant often existed. This could give rise either to less formal ‘private’ accounts or to more socially acceptable ‘public’ accounts, particularly for behaviours with strong cultural taboos, for example smoking in Sikhs. Alternatively, participants may neglect to give information that is already assumed or shared given a pre-existing relationship. For example, one Cantonese-speaking bilingual project worker was a local medical interpreter well known to many participants. Interviewees were confused that she was asking them health-related questions to which she already knew the answers. It was necessary for the bilingual project worker to emphasize to participants that she was not speaking to them in her medical interpreter role and that she could not assume any knowledge about their health.

Chinese participants, on the whole, appeared less wary of revealing personal information to the bilingual project workers than South Asian participants did. During the RAQ project, two Pakistani participants agreed to be interviewed only on the condition that one of the bilingual project workers, who was not interviewing them but who was known to them socially and who was of a different gender, did not listen to their interviews or assist in interpretation of their data into English.

The importance of gender-matching bilingual project workers and participants varied across ethnic groups and was in part dependent on the nature of the data collected. In the RAQ project, as participants were asked about their experience of health and illness, it was considered necessary for Pakistani but not Chinese participants to be interviewed by someone of their own gender. However, as the tobacco project emphasized translation assessment and consultation rather than querying personal experience, gender-matching in the South Asian groups was deemed unnecessary. At the outset, bilingual project workers from all ethnic groups agreed that it would be appropriate for them to interview people of the opposite sex from their community; however, once fieldwork commenced, one South Asian bilingual project worker felt more comfortable when her husband
accompanied her on one-to-one interviews with men. Separate male and female discussion groups were carried out with the three South Asian panels of lay community members. Gender separation of participants was thought by the Cantonese bilingual project worker to be less important in the Chinese community but separate group discussions took place with older and younger participants.

Influences on Data Analysis: Bilingual Project Workers and Academic Researchers

Given the language barrier for the English-speaking researcher, bilingual project workers were central to the process of data set construction and analysis by providing an English translation of, and commentary on, interviews. Bilingual project workers’ social and professional roles, and relationship with the researcher, influenced the way data were presented and analysed.

One key issue was the difficulty of maintaining participant confidentiality and anonymity. As mentioned previously, the communities under study were small, as was the pool of potential bilingual project workers. The same individuals may carry out much similar health or social research, act as interpreters or translators, or know participants socially. To comply with the Data Protection Act 1998, each bilingual project worker signed an oath of confidentiality during training and the concepts of anonymity and non-disclosure of data, including personal information, were discussed in depth. However, despite the researchers’ request that participants should be identified only by their participant identification number and not by name during audiorecorded feedback/analysis sessions, some bilingual project workers discussed additional or personal information about the participant. Researchers need to be vigilant in reminding bilingual project workers, often inexperienced in research ethics, that such commentary is inappropriate.

As the RAQ project involved some data collection on participants’ own health and experiences in addition to the questionnaire assessment task, there was more scope for information to be lost in translation. As mentioned earlier, one bilingual project worker was an interpreter in medical settings. This bilingual project worker tended to report interview data using medical terminology. The researcher was surprised that lay people would use these terms, and the bilingual project worker revealed that she was paraphrasing lay terms used by interviewees into medical terms in English. For example, an elderly person from the Chinese community might say they had ‘soon fung’, literally ‘damp wind’, but this was translated by an interpreter into English as ‘rheumatic pain’. Such translation may give an impression of biomedical sophistication in the discourse of lay participants that is not present and does not reflect accurately the
cultural and linguistic construction of the concept under discussion. Researchers should be careful to impress upon bilingual project workers the importance of translating concepts into English in a manner that does not misrepresent lay vocabulary. Some bilingual project workers prefaced feedback with ‘Basically what she is trying to say is . . . ’ before stating their own opinion on the intent of the participant. This may not be apparent to researchers, who may assume the words are the participant’s own. The researcher must respect the bilingual project worker’s contribution to understanding the data and the importance of their cultural expertise, while reminding them to be faithful to the interviewee’s own words. While the principles of translation and the importance of retention of meaning of text or speech are well-known in the academic literature and by interpreting courses such as the DPSI, they are not always implemented in practice. Cambridge (1999) has commented on linguistic mediators’ tendency to avoid statements that might cause loss of face to themselves or their community. Bilingual project workers may feel it necessary to present a particular image to an English-speaking academic researcher, and this may distort their interpretation of participants’ speech. Temple (1997) has noted the importance of the relative status of translator or interpreter and researcher in influencing the quality of translation of research data and emphasized the central role translators play in shaping the researcher’s perspective on the data. Twinn (1997) has compared the categories and themes generated from qualitative interviews when translated into English and analysed in their original Chinese. She found no significant differences in major categories generated, but some variation in minor themes. However, in Twinn’s (1997) study the interviews were translated and analysed by bilingual research assistants rather than community interpreters untrained in research, and it is possible that the lack of differences between the analysis of the English and Chinese interviews was due to the similarity in research training between data analysts.

Conclusion

The principles underlying cross-cultural adaptation of questionnaires, such as consultation with lay communities, have been often overlooked (Hunt and Bhopal, 2004). This article reports two research studies that followed recommended guidelines and makes transparent the social interactions inherent in the process. In these research projects three perspectives came together: those of the lay participants, those of bilingual project workers and those of the academic researchers. These groups brought their different and sometimes competing customs and expectations to the process. This article has shown the challenges in merging these differing perspectives within a methodologically prescribed
research process to reach a desired outcome: a valid means of collecting health-related data from non-English-speaking groups. The lessons learned and insights gained will guide future studies and help improve cross-cultural research.

Both projects encountered challenges inherent in the lack of direct control over the process of data gathering due to the main researcher’s (LH’s) inability to speak the range of ethnic minority languages under study. If bilingual project workers have no prior research experience, they may find the discipline of research awkward. Conversely, experienced researchers competent in the languages necessary may not be sufficiently similar to the lay community to provide an expert commentary on the language or cultural issues.

It is important that bilingual project workers feel that their role is meaningful and has the potential to be collaborative. They should be sufficiently informed of the aims of the research and involved in the evolution of the project to ensure this is the case. Researchers should also be aware of the practical and time management difficulties of coordinating research in several different languages and ensure that the resources are available to carry out this type of research rigorously. While research of this nature is resource-intensive, it is necessary to avoid invalid questionnaires and self-report instruments, leading to inaccurate data collection in cross-cultural settings.

We tried to ensure that the research was participatory and equitable, as recommended (Kai and Hedges, 1999). Consulting lay people combats ethnocentrism and counters the dominance of the western biomedical worldview. The research allowed various voices and opinions to be expressed and considered, an important virtue of qualitative methodology. Despite the difficulties described, bilingual project workers enjoyed taking part in the project and felt that they had developed new skills. They also felt that participants had enjoyed taking part and the opportunity to contribute to research, and that in the tobacco project the focus groups had been particularly productive as participants had become accustomed to the task of commenting on questionnaire acceptability.

In conclusion, collaborative working and communication between all members of a research team is a vital component of high-quality cross-cultural research. To avoid pitfalls, researchers should be reflexive about the social context and influences on data collection and analysis, and note the linguistic and cultural heterogeneity and diversity within certain ethnic minority groups. Cultural standards, expectations and norms will influence the research process and the data generated. A universalist, one-size-fits-all approach to health research methods is inappropriate within multicultural societies. Raising the quality of data obtained when working with ethnic minority communities through bilingual project workers is vital to develop the evidence base for equitable health care provision.
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Note


References


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She has published extensively on these matters and on other areas of research: health and housing, public health and private transport, patient perceived outcomes in a variety of disorders and community development and health. She is currently living in the US, growing herbs and vegetables and improving her quality of life.

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