ELSEVIER

Patient Education and Counseling 67 (2007) 286–292

Patient Education and Counseling

www.elsevier.com/locate/pateducou

Doctor–patient communication in primary care with an interpreter: Physician perceptions of professional and family interpreters

Ellen Rosenberg [a,*], Yvan Leanza [b], Robbyn Seller [c]

[a] *Department of Family Medicine, Faculty of Medicine, McGill University, 515-517 Pine Ave., Montreal, Que., Canada H2W 1S4*
[b] *Laval University, Que., Canada*
[c] *McGill University, Montreal, Canada*

Received 31 January 2007; received in revised form 9 March 2007; accepted 9 March 2007

Abstract

Objective: This paper explores physician perceptions of the ways professional and family interpreters affect their performance of doctor-communication tasks described in the Calgary-Cambridge Framework.
Methods: Physicians' (19) encounters with patients (24) accompanied by an interpreter were videotaped. Stimulated recall was used to elicit each of the participants' perceptions of the clinical encounter. We analyzed transcriptions of the physician interviews using Atlas-ti software.
Results: Physicians perceived all communication tasks to be more difficult using an interpreter than when one was not needed. Physicians perceived family interpreters to be less skilled translators than professional interpreters. Physicians expected professional interpreters to serve as culture brokers at least some of the time. Although only some family interpreters were also caregivers, physicians assumed that all of them fulfilled caregiver roles.
Conclusion: With professional interpreters, physicians follow communication rules they were taught. In contrast, physicians act as though these rules are not relevant with family interpreters who they treat as caregivers.
Practice implications: Guidelines to working with an interpreter should include directives on working with both professional and family interpreters, describing the similarities and differences with each type, and modifying the clinical encounter process to correspond to those attributes.

Keywords: Interpreters; Translation; Physician patient communication; Culture

1. Introduction

In contemporary North American and European urban settings, physicians and patients are often of different national origins and do not speak the same language. It is estimated that 17% of Canadians have a mother tongue other than English or French. On arrival in Canada 42% of immigrants speak neither French nor English [1]. In Montreal, where the present study was conducted, 27% of the population is of immigrant origin, and two-thirds of them immigrated within the past 15 years [2,3]. Thus, the insertion of an interpreter into the clinical encounter becomes a common feature. It transforms the medical dialogue into a three-way interaction [4–6]. Most models of the medical interview used to train physicians, including the one chosen for the analytical framework used in this paper [7,8], are based on a dyadic interaction between patient and professional and draw on certain assumptions regarding the roles of the patient and the physician in the encounter [8,9]. Only a few authors of teaching manuals have considered a third presence in the medical encounter [10–12]. Even when patient particularities are accounted for in the clinical encounter, the dyadic model of interaction persists [13–17], and training for work with interpreters often emphasises the 'conduit' model or metaphor, which depict the interpreter as invisible, i.e. not involved in the interactions [18]. Attention to family members in care plans usually occurs in instances where the patient is incompetent in some way or requires continual at-home care [19–23]. The dynamics of triadic interaction has implications for clinical interview practices [24].

In comparing use of professional and lay interpreters, the literature generally recommends professional interpreters, as they are trained, have knowledge of medical terms and the

* Corresponding author. Tel.: +1 514 398 7375; fax: +1 514 398 4202.
E-mail address: ellen.rosenberg@mcgill.ca (E. Rosenberg).

0738-3991/$ – see front matter
doi:10.1016/j.pec.2007.03.011

medical system, and are thought to be more certain to interpret what both the patient and physician say [25,26], do so more accurately [27] and ensure confidentiality [28]. In fact, several studies of informal interpreters advise against using family or ad hoc interpreters due to inaccuracy, omissions, etc. [29,30].

However, the role of the professional interpreter is not that clear-cut: studies have shown that the interpreter as conduit is far from reality [31–33]. Based on a linguistic analysis of interpreters' behaviors, Meyer describes two kinds of roles played by interpreters: (1) supporter of interaction of the primary interlocutors (reproducing speech actions in the target language and organization of turn-taking) and (2) primary interlocutor (answering a question addressed to someone else, explaining cultural differences and commenting on what another interlocutor has said [34]. Over 80% of health workers surveyed by Pöchhacker expected interpreters to act as a primary interlocutor in order to explain technical language and to alert parties to misunderstandings. More than 60% also expected interpreters to explain foreign cultural references and meanings [17].

As well, patients requiring interpreters may welcome the presence of a family member or close friend over a professional or other non-professional interpreter, feeling that they are more trustworthy [35] and helpful [28]. Orr notes that these preferences are based on differences in perception (according to the cultural values specific to each group) of the clinical interaction [36].

In order to understand what occurs in such a triadic encounter and to delineate differences regarding each type of interpreter, we undertook a study of actual encounters in primary care between physicians and patients accompanied by either a professional or a family interpreter. We elicited physician perceptions of the ways in which interpreters affect the performance of the principal communication tasks of the Calgary-Cambridge Framework [8]. We also asked physicians to describe the roles they expected professional and family interpreters to play.

2. Methods

We used the stimulated recall method to elicit participants' perceptions of events during the clinical encounter [37–40]. We videotaped one encounter per patient. Each participant independently reviewed the videotape during a semi-structured interview. The study was qualitative and adopted an emic approach, which elicits the subject's perspective. The research team included an experienced family physician teacher of communication skills (ER), a research psychologist specialized in intercultural communication (YL) and an anthropologist (RS). ER has extensive clinical experience with immigrants. Interviews were transcribed and analyzed using qualitative analysis software. For this paper, we analyzed only the physician interviews.

2.1. Participants

We recruited 19 physicians (14 women and 5 men) practising in neighbourhoods with high concentrations of recent immigrants. Physicians all spoke French and English. Eight visits were conducted in a language the physicians spoke less well than their mother tongue (six in English and two in French). We obtained informed consent from participating physicians, 24 of their regular patients and the patients' interpreters. There were 12 encounters with a lay interpreter (10 with a relative and 2 with a stranger) and 12 with a professional interpreter. All professional interpreters were assigned through the Quebec Agence de la Santé et des Services Sociaux and had received 45 h of training and passed formal competence testing. The languages spoken are listed in Table 1. All participants were 18 years or older. The patients were all adults attending a visit with their regular family physician. We reviewed appointment lists with participating physicians and asked them to identify all adult patients who attended with an interpreter who was also an adult. We telephoned all of these patients inviting them to arrive 30 min before their appointment to receive information about the project. The telephone call to those who used a professional interpreter was made by this interpreter. For those who used a family interpreter, the telephone call was made by the research associate who spoke to the family interpreter. Before the appointment, the research associate explained the project to the patient through the interpreter. We enrolled participants when both the patient and the interpreter consented. The Institutional Review Boards of McGill University Faculty of Medicine and all of the participating clinics approved the project.

Table 1
Interpreter characteristics

	Professional	Non-professional
Punjabi	10	2
Bengali		2
Chinese	1	
Vietnamese		1
Tamil		2
Farsi	1	2
Greek		1
Tchiluba		1

2.2. Data gathering

We videotaped one clinical encounter for each patient. All interpreters were present in the office with the patient and physician. The team reviewed the videotapes in order to identify 'key moments'. Key moments were all interactions that deviated from the model of the interpreter serving solely as a conduit. Examples are sequences different from physician–interpreter–patient or patient–interpreter–physician, information being provided by or requested of the interpreter and any direct information exchange between patient and physician without translation. We then interviewed each of the physicians in the language of their preference (English or French) while viewing the tape, stopping to discuss key moments of the encounter. Physicians could also stop the video to discuss moments they thought important. These interviews involved open questions used to elicit physicians' thoughts and feelings

about the key moments of the taped clinical encounter and about interactions with interpreters in general. The questions were guided by the literature on clinical encounters with interpreters [17,18,31–33] and on the communication tasks described in the Calgary-Cambridge Framework [8]. Interviews were recorded and transcribed.

2.3. Data analysis

We conducted a thematic analysis of the physician interviews using a qualitative data analysis programme [41]. The coding scheme was developed on the basis of interview questions and actual interview content. The analytic framework we used is the Calgary-Cambridge Framework of the clinical encounter [8]. We examined the two transversal tasks (providing structure to the encounter and building a relationship with the patient) and the two main communication tasks (information gathering and explanation and planning) to show physicians' opinions as to whether these are effectively carried out or not [7]. We report on the physicians' perceptions of the roles, the agendas and the communication strategies of all three participants in the encounter.

3. Results

All physicians expected both professional and family interpreters to act as translators, i.e. to render the meanings of statements by physicians and patients into the language of the other person. They perceived family interpreters to be less skilled translators than professional interpreters. Most physicians expected all interpreters to play another role as well: professional interpreters were expected to serve as culture brokers at least some of the time while family interpreters were expected (or assumed) to function as caregivers.

The authors have translated all physician statements made in French.

3.1. Providing a structure to the encounter

In order to accomplish their other tasks within the time frame allotted to the encounter, physicians must work throughout the encounter to provide structure. They must set the agenda for the encounter on the basis of the patient's needs as perceived by the patient and the physician. Most physicians found time management and the setting of an agenda more difficult with both types of interpreters than in encounters without interpreters because they have less control over what is being said. Physicians felt that the rhythm of the encounter was slower, and that it was more difficult to keep the encounter on track:

> I find it difficult to set your agenda whenever you have an interpreter, even if the interpreter is really really good. You can spend more time talking about other things, and not get answers to your questions or know why they are coming. (MD 10, Case 11)

Most physicians found working with professionals less difficult than with family interpreters, because the former were perceived to rarely have their own agenda. As the professional interpreter was almost exclusively transmitting information, the physician was able to maintain more control over the encounter process. Some family interpreters also performed caregiver functions. It was in their role as caregivers that they brought their own agendas to the encounter. The competition between the agendas of the family interpreter, the physician and the patient rendered the communication task more complex.

> The [professional] interpreter has no agenda. He is there for his job. This one [the family interpreter] has an agenda because he is involved. If I ignore his agenda do you think he will be compliant with the treatment and she will come? (MD 16, Case 20)

> I'm letting him speak not to offend him because I know that he really has at heart his wife's health. Maybe it's a mistake. Maybe her agenda is totally different from his. (MD 1, Case 24)

3.2. Building a relationship

Most physicians felt it was more difficult to develop a relationship with the patient with either type of interpreter than in a simple doctor–patient interaction. The need to communicate through a third person made understanding the patient's life-world [42] and feelings harder. Professional interpreters were noted to attempt to remain within the limits of their role of interpreter and not to become an interlocutor. However, patients did not perceive interpreters as inanimate conduits. At times, physicians felt excluded from the interaction because the patient and the professional interpreter were in the process of building a relationship:

> Perhaps a distance develops because the patient does not see the doctor as his best buddy. The role of listener and sympathizer has been transferred to the interpreter ... Patients don't understand that the interpreter's role is to permit the doctor and the patient to communicate. They see interpreters as their personal agent. (MD 1, Case 1).

> For some patients, the interpreter is their only friend. For refugees, the interpreter is like an anchor. (MD 10, Case 12)

Physicians who complained about working with a family interpreter saw the patient as an autonomous individual. They believed their job was to deal only with the patient.

> She had her say in what happened. So that's important. (MD 1, Case 24)

> I felt that the brother was so dominant and he was answering and I wasn't sure that he was doing the interpretation as he should for her. (MD 16, Case 20)

Other physicians established a relationship with both people.

> A strong tie is created when it's a family member, because at that moment, everyone is connected. At times the relation is established even more intensely. You don't create ties, in the

end, with just the patient; you also create ties with the translator. (MD 2, Case 7)

With professional interpreters,

It's better to continue with the same interpreter. There is already a relation created and it's better than starting over again. (MD 2, Case 4)

One physician also noted that the professional interpreter could be a partner in the therapeutic relationship.

The interpreter and I are like a therapy for her. (MD 7, Case 8)

The ability of the interpreter to transmit the physician's expressions of emotion, empathy etc. through paralinguistic cues, such as tone of voice, gestures, and encouragement was seen as uncommon, but when it occurred, as beneficial to the creation of a good patient–physician relationship.

I always appreciate it when the interpreter is able to adjust a little to my emotions. If we talk about something sad, take a softer, empathetic tone. (MD 2, Case 7).

3.3. Gathering information

Physicians described two kinds of difficulties in gathering information via interpreters performing consecutive translation. The delays incurred because the translation process affected their train of thought and thus their ability to test hypotheses. Understanding non-verbal information was also difficult. Because of the delay between the time at which the patient spoke and the translation, physicians could not link non-verbal cues to the verbal context of what the patient said.

Many physicians expected professional interpreters to act as cultural interpreters because of their participation in both the physician's and the patient's worlds.

Patients describe their symptoms in the terms of their culture. Interpreters translate into terms the North American physician will understand. (MD10, Case 12)

Physicians did not expect family interpreters to have the skills needed to perform this interpretive task.

He's not a cultural broker because he's from the same culture as she is. (MD1, Case 24)

Many physicians believed that patients were prepared to disclose aspects of their life to professional interpreters (obliged to maintain confidentiality) that they were reluctant to reveal to a family member. However, one physician used a professional interpreter to establish the patient's preference. The patient said that she would rather have her brother than to have a professional interpreter. *No I want him. I don't hide anything from him. (MD 16, Case 20)*. Patients from very small immigrant communities where most people know each other preferred to divulge health information to a family member.

Physicians had concerns about the completeness and accuracy of information received from both kinds of interpreters.

I ask a question expecting a 'yes' or 'no' answer. They speak to each other for 5 min. Then the interpreter looks at me and answers only 'yes' or 'no'. There, you don't know what they said. (MD 10, Case 12)

Physicians had several concerns, detailed below, about information transmission by family interpreters as opposed to professionals.

Family interpreters' knowledge of the language of communication, medical terms and the expectations of the clinical encounter was more limited than that of professionals.

Family don't have a perfect vocabulary. (MD 11, Case 13)

Most physicians assumed that information provided by family interpreters was filtered and less accurate than information from professional interpreters.

The danger with the family is that the family member filters the information that he wants to give to the patient or the doctor. Maybe sometimes he doesn't want to scare them. (MD 10, Case 12)

Physicians were particularly concerned about the accuracy of the information they might obtain via a family interpreter concerning sensitive and/or taboo subjects.

Sometimes, when we take the history of the patient's sexual life, it's really delicate. Sometimes we have to wait to have a professional interpreter. (MD 10, Case 12)

Some also stated that having a male interpreter with female patient, or vice versa could be a deterrent for some patients to discuss sexuality or domestic violence.

If I have female patients with whom I know I have to ask several questions regarding sexuality, fertility, pregnancy, abuse, etc., maybe I would ask for a female interpreter so there would be no discomfort. (MD 2, Case 7)

Physicians were also uncomfortable asking questions regarding sexuality and abuse via a family interpreter because the feelings of the family interpreter come into play, whereas the feelings of a professional do not. For the physician, the family interpreter appears as an interlocutor in his own right.

When you have a professional interpreter you don't really care about the interpreter's feelings because their role is not to be involved. You don't have to think of the impact of the question you're going to be asking on the interpreter as much as when it's a family interpreter. (MD 1, Case 24)

Physicians commonly complained that the family interpreter answered for the patient without translating the physician's question, transmitting his or her own perceptions, as interlocutor, and not transmitting the patient's perceptions.

It was the husband who translated and I found sometimes, when I asked something, he didn't even ask his wife what she wanted to do. He just answered me, without asking the patient. (MD 6, Case 4)

> With the professional interpreter I feel more confident that the information that I'm getting is coming from the patient and not the husband's interpretation of what's going on. The husband will answer for the wife. He's not basing his answer on what she's telling him, he's basing it on what he is living. (MD 14, Case 16)

Physicians, assuming that family interpreters had a care-giving function, saw the family interpreter as a source of useful information.

> I rely heavily upon a child who accompanies an elderly person. They're my eyes and ears. Their information is usually quite accurate. (MD 15, Case 17)

> I'm assuming that the family members accompanying them would tell me if there was a problem. It's an assumption. (MD 15, Case 17)

> He gives another point of view on the problem. It's interesting to have the view of a family member on a patient's problem. (MD1, Case 24)

One physician remarked that by simply observing interactions between patient and family member interpreter, much could be learned regarding the patient's lifeworld:

> What is interesting with the family member is you learn about the family dynamics. You learn more about the natural setting of the patient; you cannot learn this from the [professional] interpreter. You see him with her and how they are reacting and you have his input and you see how he's thinking. (MD 16, Case 20)

3.4. Explanation and planning

Often the family interpreter did not translate the treatment plan to the patient. In general, physicians did not establish what role the interpreter played in the patient's care outside the office. However, several counted on the interpreter to perform certain tasks, stating that they assumed the patient and the interpreter would interact outside the context of the encounter.

> I'm not giving her a chance to translate all that. I'm assuming that once the patient leaves the office that the patient still has a lot of questions to ask her family member interpreter—what went on in there, what else did he say? (MD15, Case 17)

According to one physician, it is important to address the family interpreter's concerns in order to successfully negotiate treatment.

> If I ignore him and I don't address his agenda the interview cannot be done. You have the patient and you have his family and you have to negotiate if you want the interview to reach the goal. (MD 16, Case 20)

Physicians felt it was difficult to negotiate a treatment plan involving behaviour change by the patient through any kind of interpreter. The physician has little control over how his or her message is transmitted, as paralinguistic and non-verbal aspects of are often lost.

> It is harder to help someone to stop smoking. I have my ways of conveying the information, but the interpreter may not translate my message with the same intensity. (MD 4, Case 4)

Physicians felt the loss of what makes them healers, their symbolic power, as the information went through a third person and into another language.

4. Discussion and conclusion

4.1. Discussion

Family physicians reported that family interpreters were less accurate and complete in their translations than professionals, making data gathering difficult. They were also a separate source of data useful to the diagnostic process.

Many family interpreters also play care-giving roles comparable to those played by persons who accompany patients even when there is no language barrier. We can look to the literature on this kind of three-way communication in order to assess similarities and differences and to look for guidance to improve triadic communication [10,11,19–23,43]. Some physicians in our study relied on family interpreters to report symptoms the patient does not mention, to arrange further contacts with health care services and to translate/explain their statements to the patient after the visit. However, few made their expectations clear to the family interpreters. In their role as caregiver, family interpreters make the task of providing a structure difficult by bringing their own agenda to the encounter. However, family interpreters can act as an ally of the physician in the achievement of the treatment plan.

When the professional interpreter develops a relationship with the patient it fosters trust, important for the therapeutic alliance [36,44]. Nonetheless, this relationship can also be seen as detrimental, undermining the physician–patient relationship and the physician's 'symbolic power' [45] by attributing to the interpreter some of the physician's role as healer.

Most physicians use professional and family interpreters in distinct ways to successfully establish a relationship with the patient. Professional interpreters are called upon to act as a bridge, rendering culturally acceptable certain questions for patients and making their statements culturally comprehensible for the physician [46]. This can be carried out by the construction of a 'third culture': a mutually beneficial interactive environment. The professional interpreter, ideally a bicultural person, can bring an understanding of the generalities of the cultural worlds of the Canadian physician the immigrant patient to one another.

The connections made by the family interpreter, on the other hand, are specific to the particular individuals. Their intimate knowledge of the patient can help the physician to establish a relationship with the whole family. Physicians for whom patient autonomy was central to their work preferred working with

professional translators because the patient was felt to be answering for herself and thus making her own decisions.

4.2. Conclusion

The results regarding the work with professional interpreters are consistent with data from other recent studies [47,48]. The surprise comes from the way physicians differentiate working with family and professional interpreters. Physicians seem to follow the communication rules they were taught with the professional interpreters only. When they use these rules, the relationship with the interpreter (and the patient) becomes a frustrating and instrumentalized one, based on the ''translating machine'' metaphor. In contrast, physicians act as though these rules are not relevant with family interpreters who are also caregivers. They are thus free to establish another kind of relationship based on the ''partnership'' metaphor.

4.3. Practice implications

Working with an interpreter requires adjustment from a dyadic to a triadic interaction, and is a skill that should be included in all medical communication training. Guidelines to working with an interpreter should describe the similarities and differences with each type, and the modifications of the clinical encounter process needed to adapt to those attributes.

I confirm all patient/personal identifiers have been removed or disguised so the patient/person(s) described are not identifiable and cannot be identified through the details of the story.

Acknowledgement

Financial Support was provided by grant MOP 53060 from the Canadian Institutes of Health Research.

References

[1] Statistics Canada. 2001 Census Catalogue, Final Edition. Ottawa: Government of Canada.
[2] Paquin C. Profil statistique de la population du CSSS de la Montagne: Montreal, 2004 [Statistical profile of the population of CSSS de la Montagne].
[3] Statistics Canada 2001 Community Profiles, 2006 [cited 2006, December 17, 2006].
[4] Baker DW, Parker RM, Williams MV, Coates WC, Pitkin K. Use and effectiveness of interpreters in an emergency department. JAMA 1996;275:783–8.
[5] Aranguri C, Davidson B, Ramirez R. Patterns of communication through interpreters: a detailed sociolinguistic analysis. J Gen Int Med 2006;21:623–9.
[6] Bolton J. The third presence: a psychiatrist's experience of working with non-English speaking patients and interpreters. Transcult Psychiat 2002;3:97–114.
[7] Richard C, Lussier M-T, Kurtz S. Une présentation de l'approche Calgary-Cambridge. In: Richard C, Lussier M-T, editors. La communication professionnelle en santé. St-Laurent, QC: Éditions du Renouveau Pédagogique Inc.; 2005. p. 291–324.
[8] Silverman JD, Kurtz SM, Draper J. Skills for communicating with patients, 2nd ed., Oxford: Radcliffe Medical Press; 2005.
[9] Stewart M, Roter D, editors. Communicating with medical patients. Newbury Park, California: Sage; 1989.
[10] Rosenberg E. Les patients accompagnés. In: Richard C, Lussier M-T, editors. La communication professionnelle en santé. St-Laurent, QC: Éditions du Renouveau Pédagogique Inc.; 2005. p. 503–27.
[11] Goudreau J, Duhamel F. La famille: lorsque des proches participent à la consultation médicale. In: Richard C, Lussier M-T, editors. La communication professionnelle en santé. St-Laurent, QC: Éditions du Renouveau Pédagogique Inc.; 2005. p. 483–501.
[12] Tebble H. Training doctors to work effectively with interpreters. In: Brunette L, editor. The critical link 3. Montreal, QC: Benjamins Translation Library; 2003. p. 81–95.
[13] Klessig J. The effect of values and culture on life-support decisions: cross-cultural medicine a decade later. West J Med 1992;157:316–22.
[14] Fuller J. Intercultural health care as reflective negotiated practice. West J Nsg Res 2003;25:781–97.
[15] Kleinman A. The illness narratives: suffering, healing, and the human condition. New York: Basic Books; 1988.
[16] Board on Neuroscience and Behavioral Health. Speaking of health: assessing health communication strategies for diverse populations. Washington, D.C.: National Academies Press; 2002, xix, 356.
[17] Pöchhacker F. The community interpreter's task: self-perception and provider's view. In: Roberts R, Abraham D, Dufour A, editors. The critical link 2: interpreters in the community. Amsterdam, Philadelphia: Benjamins Translation Library; 2001.
[18] Dysart-Gale D. Communication models, professionalization, and the work of medical interpreters. Health Comm 2005;17:91–103.
[19] Biegel DE, Song L, Milligan SE. A comparative analysis of family caregivers' perceived relationships with mental health professionals. Psychiatr Serv 1995;46:477–82.
[20] Cherlin E, Fried T, Prigerson HG, Schulman-Green D, Johnson-Hurzeler R, Bradley EH. Communication between physicians and family caregivers about care at the end of life: when do discussions occur and what is said? J Palliative Med 2005;8:1176–85.
[21] Hasselkus BR. The family caregiver as interpreter in the geriatric medical interview. Med Anthropol Q 1992;6:288–304.
[22] Rabow MW, Hauser JM, Adams J. Supporting family caregivers at the end of life: ''they don't know what they don't know''. JAMA 2004;291: 483–91.
[23] Kimberlin C, Brushwood D, Allen W, Radson E, Wilson D. Cancer patient and caregiver experiences: communication and pain management issues. J Pain Sympt Manage 2004;28:566–78.
[24] Greenhalgh T, Robb N, Scambler G. Communicative and strategic action in interpreted consultations in primary health care: a Habermasian perspective. Soc Sci Med 2006;63:1170–87.
[25] Valero Garcès C. Doctor–patient consultations in dyadic and triadic exchanges. Interpreting 2005;7:193–210.
[26] Flores G. The impact of medical interpreter services on the quality of health care: a systematic review. Med Care Res Rev 2005;62: 255–99.
[27] Meyer B. How untrained interpreters handle medical terms. In: Mason I, editor. Triadic exchanges. Manchester: St-Jerome; 2001. p. 87–106.
[28] Kuo D, Fagan M. Satisfaction with methods of Spanish interpretations in an ambulatory care clinic. J Gen Int Med 1999;14:547–50.
[29] Ballard-Reisch D. A model of participative decision making for physician–patient interaction. Health Comm 1990;2:91–104.
[30] Elderkin-Thompson V, Silver RC, Waitzkin H. When nurses double as interpreters: a study of Spanish-speaking patients in a US primary care setting. Soc Sci Med 2001;52:1343–58.
[31] Davidson B. The interpreter as institutional gatekeeper: the social-linguistic role of interpreters in Spanish–English medical discourse. J Socioling 2000;4:379–405.
[32] Wadensjö C. Interpreting as interaction. London & New York: Longman; 1998.
[33] Angelelli C. Interpretation as a communicative event: a look through Hymes' lenses. Meta 2000;45:580–92.
[34] Meyer B. Interpreter-mediated doctor–patient communication: the performance of non-trained community interpreters. In: Roberts R, Abraham

D, Dufour A, editors. The critical link 2: interpreters in the community. Amsterdam, Philadelphia: Benjamins Translation Library; 2000.
[35] Edwards R, Bogusia T, Claire A. Users' experiences of interpreters: the critical role of trust. Interpreting 2005;7:77–95.
[36] Orr R. Treating patients from other cultures. Am Fam Phys 1996;53: 2004–6.
[37] Calderhead J. Stimulated recall: a method for research on teaching. Br J Edu Psychol 1981;51:211–7.
[38] Mir MA, Evans RW, Marshall RJ, Newcombe RG, Hayes TM. The use of video-recordings of medical postgraduates in improving clinical skills. Med Educ 1989;23:276–81.
[39] Coleman T. Using video-recorded consultations for research in primary care: advantages and limitations. Fam Pract 2000;17:422–7.
[40] Arborelius E, Timpka T. In what way may videotapes be used to get significant information about the patient–physician relationship. Med Teacher 1990;12:197–208.
[41] Legewie H. Atlas-ti. Multi-media qualitative data analysis software. Berlin: Scientific Software Development GmbH; 2006.
[42] Mishler EG. The discourse of medicine: dialectics of medical interviewing. Norwood: Ablex; 1984.
[43] Fawad Aslam OA, Janjua NZ. Medical decision making: the family–doctor–patient triad. PLOS MED 2005;2:e129.
[44] Thom DH, Kravitz RL, Bell RA, Krupat E, Azari R. Patient trust in the physician: relationship to patient requests. Fam Pract 2002;19:476–83.
[45] Bourdieu P. Language and symbolic power. Cambridge: Harvard University Press; 1991.
[46] Weiss R, Stuker R. Interprétariat et médiation culturelle dans le système de soins.. Berne: Université de Neuchâtel; 1998. p. 146.
[47] Leanza Y. Roles of community interpreters in pediatrics as seen by interpreters, physicians, and researchers. Interpreting 2005;7:167–92.
[48] Raval H, Smith JA. Therapists' experiences of working with language interpreters. Int J Ment Health 2003;32:6–31.