



Research Paper

Investigating empathy in interpreter-mediated simulated consultations: An explorative study



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ABSTRACT

Objective: To explore i) the ways in which empathic communication is expressed in interpreter-mediated consultations; ii) the interpreter's effect on the expression of empathic communication.

Methods: We coded 9 video-recorded interpreter-mediated simulated consultations by using the Empathic Communication Coding System (ECCS) which we used for each interaction during interpreter-mediated consultations. We compared patients' empathic opportunities and doctors' responses as expressed by the patients and doctors and as rendered by the interpreters.

Results: In 44 of the 70 empathic opportunities there was a match between the empathic opportunities as expressed by the patients and as rendered by the interpreters. In 26 of the 70 empathic opportunities, we identified 5 shift categories (reduced emotion, omitted emotion, emotion transformed into challenge, increased challenge/progress, twisted challenge) in the interpreter's rendition to the doctor. These were accompanied by changes in the level of empathy and in the content of the doctors' empathic responses. **Conclusion:** The interpreters' renditions had an impact on the patients' empathic opportunities and on the doctors' empathic responses in one third of the coded interactions.

Practice implications: Curricula with a focus on intercultural communication and/or empathy should consider the complexity of interpreter-mediated interaction and the interpreter's impact on the co-construction of empathy.

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1. Introduction

Empathy is the ability to understand another's experience, to communicate and confirm that understanding with the other person, and to then act in a helpful manner [1]. Empathy is considered to be a basic component of all therapeutic relationships [2], it has demonstrably improved patient enablement and patient and doctor satisfaction [3,4] and it is a key factor in patients' definitions of quality of care [5]. Moreover, it is associated with positive effects on the doctor-patient relationship and health outcomes [6–11].

Despite the prominent position of empathy in the literature on healthcare communication, clinicians do not always articulate explicit empathic responses to their patients' emotions [12–14]

and instead focus on other aspects of care, such as change of therapy [15,16].

In language-discordant consultations, where the language barrier between healthcare providers and patients is one of the factors that undermine the quality of healthcare provision [17–20], empathic communication is compromised even more [21]. There is evidence that clinicians are more verbally dominant and behave less affectively when interacting with ethnic minority patients [21].

Against this backdrop, the way in which interaction between doctors, patients and interpreters occurs should be further explored before setting up curricula or adjusting existing ones with a focus on teaching doctors how to ensure empathic communication in interpreter-mediated consultations. For this reason, this explorative study aims to shed light on the following research questions: 1. How is empathic communication expressed in interpreter-mediated consultations? 2. What is the interpreter's

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effect on the expression of empathic communication in interpreter-mediated consultations?

2. Method

2.1. Data

Our dataset consists of 9 video-recorded interpreter-mediated simulated consultations, which formed part of a joint training between 7th year medical students and Master's students in interpreting at the University of Antwerp in 2016. At the time of the intervention the joint training did not officially form part of the curriculum; it was planned as an additional learning activity. The purpose of the training was to familiarise each group of students with the interactional practices of each other. For the purpose of the study, 9 different interpreting students acted as interpreters (henceforth interpreters), 9 different medical students acted as doctors (henceforth doctors) and 9 different native speakers of different languages enacted patient roles (henceforth patients). The patients did not rely on fully scripted scenarios; instead, they relied on a broad framework that describes medical conditions and patient's sociocultural experience. This allowed them to improvise and act in a natural manner as much as possible. The doctors were requested to hold a simulated consultation on a bad news delivery scenario with a patient who spoke a language in which the doctor was not proficient or of which they did not have any command. Efforts had been made to prevent any familiarity or acquaintance among doctors, patients and interpreters.

2.2. Operational definition of empathy

Drawing on the various definitions of clinical empathy in the literature [22,14], we see empathic communication as a transactional [23,24] and sequential process starting with the patient's explicit negative emotional expression, followed by an empathic response from the physician [25]. This approach is in line with our firm belief that the realization of clinical empathy is a process of co-construction between the patient and the doctor. The doctor's response to the patient's emotional expression might prompt the patient to expand further on their concerns, to which the doctor responds and so the discourse unfolds.

2.3. Coding

A large number of tools study doctor-patient interaction [7,26–32] but not many of them have been developed to study empathy in interaction [33,34]. We used the Empathic Communication Coding System (ECCS) [24] for the identification of empathic instances. This tool is a valid instrument for measuring empathic communication in monolingual physician-patient encounters and views empathy as a transactional process between doctors and patients. The ECCS focuses on behavioural aspects of empathy and divides patient-initiated empathic opportunities into statements of emotion, progress, or challenge. Emotion is defined as “an affective state of consciousness in which joy, sorrow, fear, hate, or the like, is experienced”. Progress is “a positive development in physical condition that has improved quality of life, a positive development in the psychosocial aspect of the patient's life, or a recent, very positive, life-changing event”. Challenge refers to a “negative effect a physical or psychosocial problem is having on the patient's quality of life, or a recent, devastating, life-changing event” [6].

The ECCS is used to measure empathy in interaction by identifying empathic opportunities expressed by the patient and the doctor's responses to them (seven levels: Level 0–6). (See [Appendices A and B](#)). As opposed to other tools, the ECCS

distinguishes between different levels of empathy, ranging from Level 0, which stands for the doctor's denial of the patient's perspective right through to Level 6, in which the doctor and the patient share a feeling or experience. This differentiation between levels of doctors' responses is interesting for the purpose of our study as it allows us: i) to zoom in on the doctor's responses and to avoid treating a simple acknowledgment of a patient's empathic opportunity as confirmation (i.e. legitimization) [24]; ii) to make a close and systematic observation of the doctor's responses as expressed by the doctor and as rendered by the interpreter by comparing the level of the doctor's empathy, as expressed by the doctor and as rendered by the interpreter.

Since the ECCS is primarily designed for spoken interaction and does not pay due attention to non-verbal cues, we focused only on verbal interaction. For an overview of the ECCS categories, see [Appendices A and B](#).

The ECCS was conceived with monolingual doctor-patient interaction in mind. Therefore, for the purpose of this study we used it in the following way: We coded the patients' and doctors' utterances in relation to the interpreters' renditions. It was agreed among coders to code first the interpreter's rendition in Dutch of the patient's empathic opportunity and then the doctor's response to it. In this way, the meaning of the patient's expressions was coded in the way it reached the doctor (through the interpreter) and not as it was intended by the patient. This allowed us to create conditions that resembled real-life situations as much as possible, as in interpreter-mediated consultations, doctors rely on the information they receive through interpreters and not directly from patients.

The data were coded by all authors who worked in pairs (GT & AR, KH & EdB, GT & SvDg, DK & SvDg, PP & DK. The first coder in each pair is a practising physician and/or lecturer in (interpreter-mediated) clinical communication; the second coder is a linguist and/or interpreter trainer). Each pair of coders was assigned to code a number of videos. The distribution of videos was subject to the language proficiency of the pairs of coders (GT & AR: Spanish, KH & EdB: French, GT & SvDg: German, DK & SvDg: German, PP & DK: English. For the simulated consultations in Italian and Portuguese, the coders (PP & DK) relied on enhanced transcripts, including the translation into Dutch and the translators'/proof readers' comments). All transcripts and translations were conducted by native certified translators and/or lecturers in Translation Studies at the University of Antwerp.

All coders had studied the ECCS [24] before they participated in the practice session that was organised to secure mutual understanding of the categories and levels of empathy among coders. During the practice session, all pairs of coders coded the same consultation. All coders were instructed to flag up any differences in the content and/or intensity in the patient's and doctor's utterances and the interpreter's renditions. Codes and identified differences in meaning and/or intensity were then compared among groups and consensus was reached through discussion. In order for all coders to have access to the interaction recorded in the simulated consultations and to determine the codes and the accuracy of the interpreters' renditions, transcripts of the consultations were produced. These were translated into Dutch and made available to all groups of coders. The accuracy of the transcripts and their translation was verified by native professional translators who are lecturers in Translation Studies at the Department of Applied Linguistics at the University of Antwerp.

After the practice session, each pair of coders was tasked to code a number of videos depending on the coders' fluency in the languages of the consultation. Each consultation was coded by one pair of coders. Each pair reached agreement upon the codes each member of the pair had coded individually. Each pair's codes were

discussed with DK and PP until consensus was reached between the pair and DK and PP. DK classified the codes of the shifts and the reasons that caused these shifts, upon which consensus was reached. DK and PP discussed the shifts and reasons behind the shifts until consensus was reached. All coders were instructed to code i) the interpreter's renditions in Dutch of the patient's empathic opportunities and then the doctor's responses to them; ii) the patient's empathic opportunities as uttered by the patient in their own language and the doctor's responses as rendered by the interpreter in the patient's language; iii) flagged up any differences in the content and/or intensity of the meaning, as expressed by the patients and doctors and as rendered by the interpreters. The differences in meaning were detected first by the linguist/interpreter trainers-coders who relied on standard categories used for the assessment of interpreter deliveries (e.g. omission, addition, editorialisation) and who discussed them further with the medic/communication skills trainer-coder, who reviewed them against clinical relevance (e.g. whether the differences in meaning could possibly have any implications for the outcome of the consultation).

Each pair of coders shared their codes with DK & PP and consensus was reached through discussion.

2.4. Comparison of codes and shifts

All pairs of coders compared the empathic opportunities as expressed by the patient and rendered by the interpreter. All pairs of coders were instructed by the first and last author to flag up any shifts in empathic opportunities. In this paper, we define *shifts* as changes in i) the meaning of the empathic opportunity (e.g. "I feel desperate" vs. "I am worried") or ii) the intensity of expression (e.g. use of superlatives, "I am concerned" vs. "I am very concerned"), as expressed by the patient and as rendered by the interpreter, as a result of the latter's actions (such as omissions, additions, editorialization [35] during the interpreting process).

The coders compared also the empathic responses as expressed by the doctor and rendered by the interpreter and flagged up any shifts in the level of empathy in terms of the 7 ECCS levels of empathy.

3. Results

3.1. Patient-initiated and interpreter-rendered empathic opportunities

All pairs of coders together identified 70 empathic opportunities (30 emotion, 7 progress and 33 challenge). Fifty-six of them were coded with a doctor's response (Levels 0–6). In 44 of the 70 empathic opportunities, there was a match between the empathic opportunities as expressed by the patients and as rendered by the interpreter. An example can be seen in [Box 1](#).

In 26 of the 70 coded empathic opportunities, we identified shifts (12 in emotion, 2 in progress and 12 in challenge) in the interpreter's rendition to the doctor when compared to the empathic opportunities expressed by the patient.

The shifts we identified in the empathic opportunities were noticed in terms of the *meaning* being expressed (e.g. "I feel desperate" vs. "I'm very concerned") and of the *intensity* between the patient-expressed and interpreter-rendered empathic opportunities (e.g. "I'm anxious" vs. "I'm very anxious"). The shifts in meaning resulted in patient-expressed statements of emotion, progress and challenge being coded as *reduced*, *increased*, *transformed*, *twisted* and *omitted*. [Table 1](#) provides an overview of the shifts we identified, as initially expressed by the patient and as rendered by the interpreter. Next to each type of shift, we provide the interpreter's action that caused the shift. For instance, we identified *reduced* statements of patient emotions and this was because the interpreter had omitted part of the patient's statement.

In what follows, we provide an illustration for each of these shift categories.

Reduced statements were due to interpreter-initiated *paraphrase* ([Box 2](#)) or *omission* ([Box 3](#)) of information in the patient-expressed empathic opportunity while this was being rendered by the interpreter to the doctor. The meaning, or the intensity of the patient's statement, was compromised (reduced) as a result of the interpreter's rendition.

This is in contrast with interpreter-initiated *additions* ([Box 4](#)) or *repetition* ([Box 5](#)) of parts of the patient-expressed empathic opportunity, which resulted in an increase in the meaning and/or

Box 1. Match.

P: well, it's hard for me to accept that [...]

Int: wel, het is moeilijk voor mij om dit te aanvaarden [...]

well it is difficult for me to accept that [...]

D: ik kan me voorstellen dat het niet eenvoudig is

I can imagine that it is not simple

Table 1
Shifts in patient-expressed empathic opportunities and the interpreters' actions that caused the shifts.

Patient's empathic opportunity	Interpreter-initiated action	Example
reduced emotion	paraphrase	<i>that is hard for me</i> → <i>is not so nice</i> (Box 2)
	omission	<i>I'm terrified</i> → omitted (Box 3)
omitted emotion	omission	<i>because I am very nervous and I am afraid.</i> → omitted (Box 8)
emotion transformed into challenge	omission	<i>it's very difficult</i> → omitted (Box 6)
increased challenge, progress	addition	It is a very important change in my life → added: <i>so I would like to know</i> (Box 4)
	repetition	<i>It helped</i> → <i>it has helped; it has helped</i> (Box 5)
twisted challenge	erroneous translation	<i>striscio cervicale</i> (pap smear) → in the vernacular it refers to the neck (Box 7)

Box 2. Reduced EMOTION (paraphrase).

P: ich weiß jetzt natürlich was los ist,[...]. Also, ich weiß nicht, vier bis sechs Wochen krank, ist schon schwer für mich, aber das wichtigste ist natürlich, dass ich wieder gesund werde und deswegen bin ich Ihnen schon sehr dankbar für die ehrliche Auskunft.

*I know now what the problem is,[...]. I don't know, four to six weeks sick, **that is hard for me**, but of course the most important thing is that I recover and for that I am very grateful to you for your honest information.*

Int: ik weet wat er aan de hand is. Vier tot zes weken ziek zijn, is niet zo fijn, maar het is toch belangrijk dat ik terug gezond word en ik ben u daarom ook zeer dankbaar dat u zo eerlijk bent.

*I know now what the problem is. Four to six weeks sick **is not so nice**, but it is important that I recover and because of that I am very grateful that you were so honest.*

D: Oké

Okay

intensity of the patient-expressed empathic opportunity when rendered by the interpreter to the doctor.

Due to omissions of parts of the empathic opportunities, as rendered by the interpreter, the category of the patient's empathic opportunity transformed into another category (e.g. patient's emotion was rendered by the interpreter as a challenge due to the omission of the patient's explicit emotional statement) (Box 6).

Erroneous translation of a key-term in the patient's statement resulted in twisted patient-expressed opportunities. Unlike transformed statements, in twisted statements, the interpreter made efforts to prevent a possible misunderstanding. However, the

patient's empathic opportunity as rendered by the interpreter did not convey the emotions that were attached to the empathic opportunity as initially expressed by the patient. Consequently, the doctor did not pay much attention to the patient's emotion but addressed other aspects of the patient's empathic opportunity (Box 7).

By comparing empathic opportunities that are interpreter-rendered with those that are patient-expressed, it was noted that a number of patient-expressed empathic opportunities were omitted entirely and were not relayed to the doctor (Box 8).

Box 3. Reduced EMOTION (omission).

P: Well *I'm terrified* of my wife because she wants. How would she feel if her husband came and said he couldn't have children with her?

Int: Het is meer omwille van mijn vrouw want hoe gaat ze zich voelen als ze thuis komt naar een man en hij kan geen kinderen verwekken.

It is more because of my wife because how is she going to feel if she comes home to a man and he cannot beget children with her?

D: Okay. Zo als ik het goed begrijp is het vooral ook de voortplanting die het probleem is en dat wil ik heel graag nu uitgebreid er over babbelen want er zijn echt nog manieren waarop u kinderen kan krijgen.

Okay. So if I understand this well the problem is mainly procreation and this I would like to discuss extensively because there really are ways you can have children.

Box 4. Increased CHALLENGE (addition).

P: Y cuando vamos a tener los resultados? [...] muy importante de mi vida.

And when will we have the results? [...] It is a very important change in my life.

Int: Wanneer zouden we die resultaten dan krijgen? Want het gaat hier wel over een hele grote verandering in mijn leven, dus ik zou dat wel willen weten.

When will we get the results? Because we are talking about a very big change in my life, so I would like to know.

D: Twee weken

Two weeks

3.2. Doctors' responses to the patients' empathic opportunities and interpreter-rendered responses

The comparison between the doctors' responses as expressed by the doctor and rendered by the interpreter revealed that out of the 70 coded empathic opportunities: i) 11 of the 26 cases marked by shifts were accompanied by an effect on the level of empathy as

expressed by the doctor and as rendered by the interpreter; ii) 15 of the 26 cases marked by shifts were not accompanied by any effect on the level of empathy as expressed by the doctor and as rendered by the interpreter; iii) 44 empathic opportunities which were not marked by shifts (match), were not accompanied by any effect on the level of empathy as expressed by the doctor and as rendered by the interpreter.

Box 5. Increased PROGRESS (repetition)

P: well, yes, I've been taking this and it helped.

Int: ja, ik heb dit al genomen en het heeft geholpen, heeft geholpen.

yes, i have been taking this and it has helped; it has helped.

D: goed zo

good

Box 6. Emotion transformed into challenge (omission).

P: Oui oui, on l'a tellement voulu, cet enfant que...je n'arrive vraiment pas à y croire, c'est très difficile. C'est une très mauvaise nouvelle. Je n'arrive pas à réaliser pour le moment.

Yes yes, we wanted it so badly, this child... I don't really manage to believe it, it's very

difficult. It's very bad news. I don't manage to realize it at the moment.

Int: Euh ja we wilden dit kindje zo graag, dat het echt heel erg slecht nieuws is dat we dit te horen krijgen. Ik realiseer het me ook nog niet helemaal. Dus...

Euh yes we wanted this baby so badly, so it's really very bad news that we hear this. I

don't really realize it yet. So...

D: Ja. Ja, dat begrijp ik wel maar dat wil zeker niets zeggen over een volgende zwangerschap [...]

Yes. Yes, I understand this but this certainly doesn't say anything about a next pregnancy [...]

4. Discussion and conclusion**4.1. Discussion**

We identified three types of patient empathic opportunities (emotion, challenge, progress) by using the ECCS coding tool [24]. We found five shift categories in the interpreters' renditions of them. Every type of empathic opportunity seems to be susceptible to shifts while being rendered by the interpreter, which might come either with an increase or reduction in meaning and/or intensity of the expressed statement.

Three types of shift categories in patient empathic opportunities were accompanied by a change in the level of empathy: *reduction, increase and omission*. More specifically, a *reduced* or (partly) *omitted* empathic opportunity by the interpreter was accompanied by a drop in the level of empathy as rendered by the interpreter in comparison to the level of empathy as expressed by the doctor. An *increase* in the patient's empathic opportunity as rendered by the interpreter was accompanied by an increase in the doctor's level of empathy as rendered by the interpreter. Our finding – which has emerged from the analysis of videos featuring 9 different interpreters in 6 different languages – is in line with

Box 7. Twisted challenge (erroneous translation).

P: uno striscio cervicale¹? Io soffro di perdite all'utero
a cervical smear? I suffer blood loss at the womb

I: een uitstrijkje? Ik heb bloedverlies
a smear? I have blood loss

D: ja, inderdaad. We hebben dit vorige week besproken (...)
yes indeed. We discussed this last week (...)

¹The patient expresses her concern by means of a term (striscio cervicale) which, although correct in medical jargon (pap smear), in the vernacular it refers to the neck. The interpreter, by providing a seemingly erroneous translation, passes the patient's concern (here coded as "challenge") on to the doctor. However, the interpreter's rendition does not convey the patient's anxiety.

Box 8. omitted EMOTION.

P: Also mir wäre es am liebsten, wenn Sie jetzt anrufen, weil ich auch Gewissheit haben möchte.
 Ich möchte auch nicht zu lange warten, weil ich sehr nervös bin und auch Angst habe.
I would like you to call right now, because I want some certainty. I don't want to wait too long, because I am very nervous and I am afraid.

Int: Dan heb ik graag dat u nu belt, want ik wil ook zekerheid en zeker niet te lang wachten.
I would like you to call now, because I want certainty and I don't want to wait too long.

D: Oké, da's goed, dan gaan we dat nu doen, dan gaan we een afspraak maken. Voelt u zich geholpen? Heeft u verder nog iets van vragen?
Okay, then that is what we will do right now, we will make an appointment. Do you feel helped? Do you have further questions?

literature that suggests that a generalized account by the patient (e.g. including only factual information and lacking emotions) can prompt a doctor's response that is less committed and more pro forma. The more detailed and comprehensive the account, the more likely the empathic response will be [36]. At the same time, this finding raises questions about the interpreter's function [37] in the doctor-patient interaction and seems to provide further evidence that interpreters participate in interaction.

While the *reduction*, *increase* or *omission* of patient empathic opportunities as rendered by the interpreter was accompanied by changes in the intensity in the doctors' empathy, *transformed* and *twisted* empathic opportunities as rendered by the interpreter came with changes in the content of the doctors' empathic responses. This means that in the case of *transformed* or *twisted* statements, the doctors responded empathically to different

aspects of the patients' empathic opportunities from the ones that were expressed initially by the patient.

Although we identified 70 empathic opportunities, we noticed that doctors provided an empathic response in only 56 cases. Disregarding the shifts, 44 out of 70 empathic opportunities in our study were rendered by the interpreter in an appropriate way, indicating that the doctors did not always respond in an empathic way. This seems to confirm existing literature. A causal hypothesis to be evaluated might be the doctor's focus on the interpreter, thus ignoring the patient's non-verbal communication. What is more, time pressure during interpreter-mediated consultations, might force doctors to view the communication of factual information as a top priority. In more than a third of the empathic opportunities, the interpreters' intervention caused a shift in the way the empathic opportunity reached the doctor. An awareness of this risk

and an alertness to the unmet expectations regarding patients' emotional responses to a bad-news delivery should help doctors identify incomplete, inaccurate or ineffective renditions by the interpreter and seek clarification.

It might be argued that training interpreters to maintain the patient's empathic opportunities as intended by the patient would enable doctors to respond empathically in a more adequate way. In a similar fashion, interpreters should be informed of the importance to have the doctors' communicative goals [38–40] in a consultation reached, which might be expressed in different ways, for instance by means of repetition. Likewise, it can be argued that doctors can be trained to place extra emphasis, on certain expressions, repetitions or order of information during an interpreter-mediated consultation.

It might be hypothesized that the significant number of shifts we identified and their potential impact on the intensity and content of the doctors' empathic responses might be due to the fact that the interpreters in our study were still in their learning process. However, the literature provides evidence of similar shifts being made by professional interpreters [35]. What is more, there is evidence in the literature to suggest that interpreters experience difficulties in managing their own emotions when helping deliver bad news [41]. The difficulties inherent in the complex act of interpreting factual information and in the management of emotions are reasons that seem to partly determine whether a rendition of empathic opportunities and responses is successful or not. Yet, we anticipate that there is still a wide range of complex dynamics that play a decisive role in the successful rendition – or not – of empathic opportunities and responses that still need to be unravelled in future research. For instance, one of the topics that is yet to be explored in more detail is the process in which the interpreter takes the patient's non-verbal behaviour into account and to what extent this contributes to the interpreter's understanding of the content and intensity of the patient's empathic opportunity. The same applies to the interpreter's understanding of the content and intensity of the doctor's empathic response. Future research, employing methodologies, such as video-stimulated recall interviews with all parties in the consultation, might be able to shed light on the complexity of the co-construction of empathic communication. One of the topics that could be investigated in this way is the doctors' expectations of the patient's emotional reactions to bad-news delivery. Doctors preparing themselves for bad-news delivery might expect a patient to react in an emotional way or to express empathic opportunities. The absence of either of them might prompt the doctor to explore the patient's full understanding, or to be alert to incomplete renditions of the patients' empathic opportunity by the interpreter.

Despite applying a valid tool, we encountered some difficulty in identifying patient expressions that might prompt an empathic response from the physician. Researchers who applied the Verona Coding Scheme for Emotional Sequence (VR-CoDES) have reported similar difficulties [42]. The convergence of findings suggests that emotional expression may be far more complex and subtle than thought. Moreover, we also noticed that the classification of patient empathic opportunities into categories of emotion, progress and challenge was not always straightforward.

A comparison of our results with literature yields some reasons to further investigate our results as the observed shifts may have an impact on the quality of patient care. The general literature on communication in healthcare shows that patients are more likely to repeat emotional cues and concerns when they are not picked up and addressed by doctors the first time round [12,43]. However, there is evidence that patients relying on interpreters speak less than patients communicating directly with their doctors [44].

4.2. Limitations

Expressions of emotion or challenge vary across languages and cultures. This may have affected the outcome of our findings. The small number of interpreters used in this study does not allow us to comment on individual interpreter performance nor on differences between languages and cultures.

Another limitation is that we analysed simulated consultations. Besides, the doctors and interpreters in this study were still in their learning process and they might have acted differently compared to practising physicians and professional interpreters.

The tool we used did not allow us to take non-verbal cues into account. Future research should explore the process of co-construction of empathy in authentic interpreter-mediated consultations by incorporating non-verbal cues. It would be worthwhile to rely on video-stimulated recall and investigate whether and how doctors combine the professional interpreters' verbal renditions with the patients' non-verbal expression of emotions in their attempt to co-construct empathy.

In this study, codes and shifts in meaning and intensity were discussed among coders until consensus was reached. Follow-up studies should consider calculating inter-coder reliability.

4.3. Conclusion

Empathic communication in interpreter-mediated consultations seems to be subject to the interpreters' renditions of the patient's empathic opportunities. The interpreter's renditions might have an impact on the content and/or intensity of the patient's empathic opportunities and, by extension, on the level of empathy expressed by the doctor. Curricula with a focus on intercultural communication and/or empathy should take into account the complexity of interpreter-mediated interaction and the interpreter's impact on the co-construction of empathy.

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Appendix A.

Identifying empathic opportunities

The empathic opportunity begins with a clear and direct statement of emotion, progress or challenge by the patient:

Statement of emotion: The patient describes him or herself currently feeling an emotion. Emotion is defined as "an affective state of consciousness in which joy, sorrow, fear, hate, or the like, is experienced".

"My biggest fear is – I don't think I'm going to get ovarian cancer or breast cancer – but I do think that I'm going to get colon cancer."

"I'm just scared because I never went through nothing – I've never had nothing wrong with me."

Statement of progress: The patient states or describes a positive development in physical condition that has improved quality of life, a positive development in the psychosocial aspect of the patient's life, or a recent, very positive, life-changing event.

"I've been exercising more than last time when I had seen you."

"We just got married."

(Continued)

Identifying empathic opportunities

Statement of challenge: The patient states or describes a negative effect a physical or psychosocial problem is having on the patient's quality of life, or a recent, devastating, life-changing event.
"But sometimes it's hard just eating three ounces of meat, you know what I mean?"
"I just haven't had the energy to do my job as much anymore."

Source: Bylund CL, Makoul G. Empathic communication and gender in the physician-patient encounter. Patient education and counseling. 2002;48:207-16.

Appendix B.

Empathic Communication Coding System Levels

Level	Name	Description
6	Shared feeling or experience	Physician self-discloses, making an explicit statement that he or she either shares the patient's emotion or has had a similar experience, challenge, or progress.
5	Confirmation	Physician conveys to the patient that the expressed emotion, progress, or challenge is legitimate.
4	Pursuit	Physician explicitly acknowledges the central issue in the empathic opportunity and pursues the topic with the patient by asking the patient a question, offering advice or support, or elaborating on a point the patient has raised.
3	Acknowledgment	Physician explicitly acknowledges the central issue in the empathic opportunity but does not pursue the topic.
2	Implicit recognition	Physician does not explicitly recognize the central issue in the empathic opportunity but focuses on a peripheral aspect of the statement and changes the topic.
1	Perfunctory recognition	Physician gives an automatic, scripted-type response, giving the empathic opportunity minimal recognition.
0	Denial/disconfirmation	Physician either ignores the patient's empathic opportunity or makes a disconfirming statement.

Source: Bylund CL, Makoul G. Examining empathy in medical encounters: an observational study using the empathic communication coding system. Health communication. 2005;18:123-40.

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