Informal interpreting in Dutch general practice

Zendedel, R.

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Chapter 4

Expected Interpreters’ Roles Related to Patients’ Control and Trust

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Abstract

In order to complement previous qualitative research and to provide explanations for previous contradictory findings, we have conducted a survey-study among Turkish-Dutch migrant patients \(n = 91\), informal interpreters \(n = 91\) and GPs \(n = 26\) directly before and after their GP consultation. First, we compared the expectations of the three parties on seven roles of the informal interpreter using Habermas’ Lifeworld versus System theory: conduit, institutional gatekeeper (system roles); and advocate, emotional supporter, information source, cultural broker and counselor (lifeworld roles). Second, patients’ expectations of the informal interpreters’ role were linked to their perceived control of the consultation and trust in informal interpreters.

Results show a discrepancy between the expected roles by GPs on the one hand, who mainly expected the system role of conduit, and informal interpreters and patients on the other hand, who mainly expected lifeworld agent roles from informal interpreters. Moreover, patients’ expectations of the lifeworld agent roles (especially emotional supporter role) were positively related to patients’ increased perceived control and trust in informal interpreters. Thus, our study indicates that patients do not expect a neutral conduit role from informal interpreters, but rather benefit from interpreters who are expected to provide emotional support, extra information to the GP, cultural brokering and advocacy.
Introduction

Due to globalization the number of migrant patients in the health care sector is rapidly rising (Mosquera, Samuels, & Flores, 2016; Triemstra, Veenvliet, Zuizewind, Kessel, & Bos, 2016). Migrant patients often lack adequate language proficiency in the host language, which impedes the communication between the healthcare provider and the patient (Jacobs, Chen, Karliner, Agger-Gupta, & Mutha, 2006; Karliner, Jacobs, Chen, & Mutha, 2007). Using interpreters is one way to bridge this language gap. In contrast to some countries where professional interpreting services are provided for by the government (Flores, 2005; Jacobs et al., 2006), in the Netherlands no funding exists for the use of professional interpreters in primary care. The use of so-called informal interpreters, who are usually the family members of the patient, is common practice in Dutch primary care. Informal interpreters are present in around 60% of consultations with migrant patients, and especially frequently with first generation female Turkish migrant patients, who have low Dutch language proficiency (Huijnk & Dagevos, 2012, Triemstra et al., 2016). As the general practitioner (GP) has a gatekeeping function in the Netherlands, where the patients visit the GP first in order to get a referral to specialized care, adequate communication in the GP setting is of a great importance.

There is little consensus in the literature about the (dis)advantages of informal interpreting. On the one hand, the drawbacks of informal interpreting are highlighted, such as inadequate translation and omission of important information (Aranguri, Davidson, & Ramirez, 2006; Flores, 2005), internal role conflicts (Messias, McDowell, & Estrada, 2009), mistrust in informal interpreters by the GP (Gadon, Balch, & Jacobs, 2007; Robb & Greenhalgh, 2006), and loss of control of the health care provider (Meeuwesen, Twilt, ten Thije, & Harmsen, 2010; Rosenberg, Leanza & Seller, 2007). On the other hand, positive aspects are mentioned as well, such as the high trust of patients in the informal interpreters (Edwards, Temple, & Alexander, 2005), their emotional support for the patients (Ho, 2008; Rosenberg, Seller, & Leanza, 2008), and empowerment of the patients (Green, Free, Bhavnani, & Newman, 2005).

In order to better understand these seemingly contradictory findings, we need to take into account the different perspectives of the actors, that is the GPs’, the migrant patients’ and the informal interpreters’ on the relevant issues. A recent review of the literature has highlighted three key issues for the study of interpreting in medical settings, that is, interpreters’ role, control and trust (Brisset, Leanza, & Laforest, 2013). Previous qualitative research has already provided an exploration of these issues (e.g., Edwards et al., 2005;
Leanza, 2005; Robb & Greenhalgh, 2006). However, there is a lack of quantitative research linking the different concepts to each other, which is needed to provide explanations for previously found contradictory findings.

Hence, we aim to compare the patients’ expectations of interpreters’ roles to GPs’ and informal interpreters’ own role expectations and link the role expectations of the patients to their perceived control of the consultation and trust in the interpreter. Both patients’ control and trust have been related to positive health-related outcomes, such as better adherence to treatment and higher satisfaction with the consultation (Street, Makoul, Arora, & Epstein, 2009). In the next section we will discuss the theoretical concepts and present our research hypotheses.

**Interpreters’ roles**

Interpreters perform many different roles within the medical interaction, which have been defined as “behaviors and skills associated with being an interpreter as expected by institutions, practitioners and patients” (Brisset et al., 2013; p.135). Research on medical interpreting has frequently used Habermas’ System versus Lifeworld metaphor to explain the different roles of medical interpreters (e.g., Robb & Greenhalgh, 2006). The System in health care refers to policies and rules that provide a framework for the medical consultation, such as, for instance the limited consultation time (ten minutes in the Dutch GP setting for a single consultation). Lifeworld is the familiar world of patients and their community, relating to patients’ emotions, worries and concerns (Robb & Greenhalgh, 2006).

Previous research has described the System and Lifeworld as opposing ends of a continuum with the different roles of the interpreter positioned either as a System or as a Lifeworld role (Brisset et al., 2013). Informal interpreters tend to represent the patient’s lifeworld and act as the patient’s advocate (Green et al., 2005), counselor (Edwards et al., 2005) or provide emotional support to the patient (Ho, 2008). They also often act as an extra information source by providing additional knowledge about the patient’s illness and lifeworld to the doctor (Rosenberg et al., 2007, Hilder et al., 2016). A similar role is that of the cultural broker, when the informal interpreters provide information about the cultural background of the patients to the healthcare providers to help them better understand the patients (Leanza, 2005).

Professional interpreters on the other hand, tend to side more with the doctors and to act on behalf of the system, for instance by keeping track of the consultation time (Hsieh, 2006a). This system agent role of institutional gatekeeper is also performed by
healthcare providers who act as interpreters for migrant patients (Davidson, 2000). When performing the role of a conduit, the interpreter ideally remains neutral and sides neither with the patient, nor with the doctor. However, as ‘the voice of the medicine’ is usually dominant during the medical consultation (Mishler, 1984), when acting as a conduit the interpreter more likely transmits the dominant discourse by representing the system and is therefore classified as a system agent role (Brisset et al., 2013). Thus, following Brisset et al. (2013), we treat the conduit and the institutional gatekeeper as system agent roles and the advocate, emotional support, information source, cultural broker and counselor as lifeworld agent roles.

Recent qualitative research comparing the perspectives of GPs, patients and informal interpreters on the expected roles of the informal interpreter has indicated that patients and informal interpreters have similar perspectives and mainly expected lifeworld-agent roles from informal interpreters with advocate, information source and emotional support being the most prominent roles. GPs on the other hand, were more inclined to expect system agent roles (predominantly the conduit role) from informal interpreters (Hilder et al., 2016; Zendedel, Schouten, van Weert, & van den Putte, 2016a). These comparative qualitative research studies which have stressed the similarities of the patients’ and informal interpreters’ perspectives on the one hand, and GPs’ divergent perspective on the other hand, are in line with prior research which has investigated the perspectives of the three actors separately, that is GPs’ (Rosenberg et al., 2007); patients’ (Edwards et al., 2005) and informal interpreters’ perspectives (Green et al., 2005).

Thus, although the role of the interpreter has received ample attention in qualitative studies, to our knowledge, to date no studies have integrated the different roles in one study and compared the three perspectives (GPs’, informal interpreters’ and patients’) on these roles in a quantitative way, which is important for consolidation of previous conclusions. Based on the System versus Lifeworld theory and on the earlier discussed empirical findings, we expect a discrepancy in role expectations between the GP on the one hand, and the patient and the informal interpreter on the other hand. Hence, we will test the following hypothesis:

**H1:** a) Patients and informal interpreters will have similar expectations of the informal interpreters’ role and mainly expect lifeworld agent roles, that is advocacy, emotional support, information source, cultural broker and counselor roles. b) In contrast to patients and informal interpreters, GPs will predominantly expect the system agent roles, that is the conduit and the institutional gatekeeper roles.
Control in interpreter-mediated interactions

The power balance in a medical consultation is generally more doctor-oriented, that is, the health care provider is usually in control and the voice of the system dominates the voice of the lifeworld (Greenhalgh, Robb, & Scambler, 2006, Mishler, 1984). The presence of an interpreter converts the dyadic interaction into a triadic one and changes the power and control dynamics of the interaction (Brisset et al., 2013). Previous qualitative studies have indicated that professional interpreters and bilingual nurses who act as interpreters side more with the health care providers and enlarge providers’ control of the consultation by performing system agent roles (Davidson, 2000; Hsieh, 2006a). Informal interpreters on the other hand, side with the patients and enlarge patients’ control, by acting as lifeworld agents, for instance, as advocate, emotional supporter, information source etc. (Brisset et al., 2013; Greenhalgh et al., 2006). Indeed, a recent qualitative study assessing Turkish migrant patients’ experiences with informal interpreters has shown that patients feel more in control when visiting the GP with an informal interpreter, as they believe that the informal interpreters will represent their interests and help them to reach their health-related goals (Zendedel, Schouten, van Weert, & van den Putte, 2016b). Especially the expectations of the advocacy role were related to higher perceived control of the patients. Thus, previous qualitative research has already suggested a connection between perceived lifeworld agent roles of the interpreter and increased patients’ control of the consultation. However, to date, quantitative studies directly linking patients’ expectations of informal interpreters’ role to their perceived control are lacking. Hence, in this study, we link the Turkish migrant patients’ expectations of the earlier mentioned roles (i.e., conduit, institutional gatekeeper, advocate, emotional supporter, information source, cultural broker and counselor) to their perceived control in order to test which role expectations are related to higher perceived control of the patient. Based on previous qualitative studies and on the Lifeworld versus System theory, we hypothesize the following:

H2: Patients’ higher expectations of the lifeworld agent roles of the interpreter (i.e., advocate, counselor, emotional supporter, information source and cultural broker), will be related to patients’ higher perceived control of the consultation.

Trust in informal interpreters

Trust is a core element of the patient-provider relationship and has been linked to positive health outcomes, such as better adherence to treatment, better access to care and eventually a better vitality of the patient (Street et al., 2009). In interpreter-mediated
interactions, the interpreter becomes the link between the patient and the health care provider and therefore trust in the interpreter is crucial (Brisset et al., 2013). The patients confide their health problems to the interpreters and thus they need to trust the interpreters’ honesty, fidelity and competence, which form the components of trust (Hall, Dugan, Zheng, & Mishra, 2001). We will use these dimensions of trust in the present study, which have also been applied in previous qualitative research on interpreter-mediated communication (Zendedel et al., 2016a).

Competence, the first dimension, is when interpreters are trusted for their ability to provide correct translations without making mistakes. Fidelity, the second dimension, is when interpreters are trusted because they act in the best interests of the patient. Honesty, the third dimension, is when interpreters are trusted because they tell the truth and do not disguise information. Finally, the fourth dimension, global trust is the irreducible, holistic, component of trust, when the patient ‘simply’ trusts the interpreter for no reason in particular (Hall et al., 2001). Previous qualitative research has indicated that patients’ trust in informal interpreters is mainly based on the fidelity dimension, that is, because they believe that the informal interpreters are acting in their best interests (Zendedel et al., 2016a). This study has also proposed a relationship between the informal interpreters’ role and patients’ trust by suggesting that the informal interpreter’s role of the advocate is related to patients’ fidelity in the interpreter. Based on this previous research, we hypothesize that the expectations of lifeworld-agent roles, that is, advocate, emotional supporter, information source, cultural broker and counselor will be related to higher trust in the informal interpreter. Hence, we will test the following hypothesis:

**H3:** Patients’ higher expectations of the lifeworld agent roles of the interpreter (i.e., advocate, counselor, emotional supporter, information source, and cultural broker), will be related to patients’ higher trust in the interpreter.

The aforementioned qualitative study (Zendedel et al., 2016b) has also suggested a mediated relationship between the informal interpreters’ role of the advocate, and patients’ trust, through their perceived control. That is, it is assumed that patients feel more in control when informal interpreters advocate on their behalf and this perceived control leads to more trust in the interpreter. In order to explore whether the patients’ perceived control also mediates the relationship between other expected roles and patients’ trust in the interpreter, we will answer the following research question:
RQ: To what extent does patients’ perceived control of the consultation mediates the relationship between the expected roles (i.e., lifeworld and system agent roles) of the interpreter and patients’ trust in the interpreter?

Method

Procedure
One of the authors (MM), who also works as a general practitioner, has sent out 100 e-mails to her GP-colleagues and recruited six GP practices with 26 GPs in four multicultural cities in the Netherlands to participate in the study. The participating practices had a large number of Turkish migrant patients (at least 25%), which was an inclusion criterion to participate in the study. The first author (RZ) had a briefing with all practices to inform the participating GPs about the research procedure. Wall-posters in Turkish and Dutch were hung in the GP practices to inform the patients about the study. We have recruited 12 Turkish-Dutch research assistants with a sound knowledge of Turkish and Dutch to approach the patients in the GP practices. All research assistants received training about the research procedure.

The study ran from November 2015 to May 2016 in all six practices. At least two different assistants were collecting data in each practice at the same time. Each practice was visited on different days of the week during the research period to make sure every GP of each practice had an equal chance to participate in the study. All patients in the waiting-room who, according to the research assistants, could be of Turkish origin and who were in the company of another person were invited to participate in the study. Inclusion criteria were that the patients visited the GP accompanied by an informal interpreter and that both the patient and the interpreter were above 18 years. After explaining the study purpose, patients and informal interpreters were asked for their consent to participate. All participants (patients, informal interpreters and GPs) have given their written informed consent to the study. The study has been approved by the Ethical Commission of our University (number 2015-CW-71).

The GPs and informal interpreters answered the paper-and-pencil surveys themselves; for informal interpreters, there was a Dutch and Turkish version of the surveys available. As most patients were illiterate, the research assistants read the questions of the survey to the patients and noted down their answers. All patients’ surveys were collected in this oral way and were completely in Turkish.
Participants
Of the 237 approached patient-interpreter pairs, 126 pairs agreed to participate in the study, thus a response rate of 53%, which is in line with previous findings (Ahlmark et al., 2015; Schinkel, Schouten, & van Weert, 2013). Reasons for not wanting to participate were privacy issues, too little time or no interest in the study. We had to exclude 35 pairs from analysis due to different reasons, such as incomplete surveys (see Figure 1).

Figure 1. Flow Chart of the Sampling Procedure
The final sample for analysis consisted of 91 interpreter-patient pairs and 26 GPs with whom they had an appointment. All patients were first generation Turkish migrant patients and the interpreters were mainly adult children and spouses of the patient (see Table 1 for sample characteristics).

Measures
Separate pre-consultation and post-consultation questionnaires were constructed for each of the three groups of participants (patients, GPs and informal interpreters). The patient questionnaire was translated into Turkish by a professional translation service and double-checked by two Turkish-Dutch research assistants. All questionnaires have been pilot tested among patients, informal interpreters and GPs during a pilot-testing week in a GP practice to ensure that all items were understood by the respondents. We have reformulated some of the questions of the patients’ questionnaire to make them easier to understand. The pretest data were not included in the final dataset.

Pre-consultation questionnaire. The pre-consultation questionnaire consisted of demographic questions and questions regarding the expectations of the interpreter’s role. We asked about the following roles of the interpreter: conduit, institutional gatekeeper, advocate, information source, emotional supporter, cultural broker and counselor in the following way (patients’ version of the questionnaire): “What do you expect from the person who came with you today to interpret?” We have described the roles in the following manner: Conduit: to provide a literal translation of what is communicated; Institutional gatekeeper: to make sure the consultation does not exceed the allocated time; Information source: to provide additional information about your health to the doctor; Advocate: to do whatever is needed to reach your goals; Emotional supporter: to emotionally support you; Cultural broker: to give the doctor information about the Turkish culture in order to better understand you; Counselor: to give you advice during decision making. We have asked the patients, the informal interpreters and the GPs to what extent they think these roles should be performed by the informal interpreter on a four point scale ranging from (1) totally disagree to (4) totally agree.

Post-consultation questionnaire. The post consultation questionnaires consisted of questions measuring the patients’ control and trust. Control was measured with three items on a five point scale, that is: “To what extent did the person who came with you to interpret, facilitate or hinder 1) the communication 2) reaching your goal 3) relationship
building with your doctor?”. Answers had to be given on a scale ranging from (1) totally hindered to (5) totally facilitated, which all loaded on one factor that proved to be reliable (EV = 2.03; $R^2 = .68$; $\alpha = .76$). Thus we have created a scale for control by calculating the mean scores ($M = 4.56$, $SD = .72$).

Trust in the interpreter was assessed with four items on a four point scale, ranging from (1) totally disagree to (4) totally agree, each measuring another dimension, that is, competence, fidelity, honesty and global trust (based on Hall et al., 2001; see theoretical framework for explanation of the items). We have split the trust dimensions into cognitive and affective components. Fidelity, honesty and global trust all loaded on one factor and proved to be reliable (EV = 1.93; $R^2 = .64$; $\alpha = .64$; $M = 3.93$, $SD = .21$) forming the affective component of trust. The competence dimension did not form a scale with the items of the affective dimension and was treated as a separate item, forming the cognitive component of trust ($M = 3.60$, $SD = .79$).
Table 1. *Sample Characteristics*

<table>
<thead>
<tr>
<th>Sample Characteristics</th>
<th>Patients (N = 91)</th>
<th>Interpreters (N = 91)</th>
<th>GPs (N = 26)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>19 (21%)</td>
<td>29 (32%)</td>
<td>7 (27%)</td>
</tr>
<tr>
<td>Women</td>
<td>72 (80%)</td>
<td>62 (68%)</td>
<td>19 (73%)</td>
</tr>
<tr>
<td><strong>Age (SD)</strong></td>
<td>59.19 (13.27)</td>
<td>39.47 (12.48)</td>
<td>47.54 (11.27)</td>
</tr>
<tr>
<td><strong>Educational level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>26 (28%)</td>
<td>5 (6%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Primary school</td>
<td>50 (55%)</td>
<td>8 (9%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>High school</td>
<td>15 (16%)</td>
<td>14 (15%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Intermediate vocational education</td>
<td>0 (0%)</td>
<td>48 (53%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Higher professional education</td>
<td>0 (0%)</td>
<td>15 (16%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Academic education</td>
<td>0 (0%)</td>
<td>1 (1%)</td>
<td>26 (100%)</td>
</tr>
<tr>
<td><strong>Dutch language proficiency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>50 (54.9%)</td>
<td>0 (0%)</td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>36 (39.6%)</td>
<td>9 (9.9%)</td>
<td></td>
</tr>
<tr>
<td>Reasonable</td>
<td>3 (3.3%)</td>
<td>24 (26.4%)</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>2 (2.2%)</td>
<td>34 (37.4%)</td>
<td></td>
</tr>
<tr>
<td>Very good</td>
<td>0 (0%)</td>
<td>24 (26.4%)</td>
<td></td>
</tr>
<tr>
<td><strong>Residence time in the Netherlands</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Born in the Netherlands</td>
<td>0%</td>
<td>32 (35.2%)</td>
<td></td>
</tr>
<tr>
<td>Mean residence time in years (SD)</td>
<td>31.94 (11.57)</td>
<td>31.60 (8.55)</td>
<td></td>
</tr>
<tr>
<td><strong>Interpreter’s relation to the patient</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daughter</td>
<td>34 (37%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Son</td>
<td>18 (20%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spouse</td>
<td>25 (28%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grandchild</td>
<td>4 (4%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other family member</td>
<td>4 (4%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friend of the patient</td>
<td>6 (7%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perceived health status of the patient</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not healthy at all</td>
<td>28 (31%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a little healthy</td>
<td>42 (46%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>relatively healthy</td>
<td>20 (22%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>very healthy</td>
<td>1 (1%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Time working as a GP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean time in years (SD)</td>
<td></td>
<td></td>
<td>13.85 (10.98)</td>
</tr>
</tbody>
</table>
Analyses

ANOVA s with Bonferroni post-hoc tests were conducted to compare the three groups regarding the expected role of the interpreter (H1). Regression analysis was used to assess the relationship between the different role expectations as predictors of patient's perceived control of the consultation (H2). Model 4 of process (Hayes, 2012), was used to test the mediation models, that is assessing the direct relationships between the different role expectations as predictors of patients cognitive and affective trust (H3) and mediated relationships via control (RQ1). All models were controlled for background variables that were correlated with the outcome measures, that is, interpreters' gender with patients' perceived control and patients' language proficiency with patients' affective trust.

Results

Interpreters' roles: Comparison of patients', interpreters' and GPs' expectations

In line with H1, there were no significant differences between the role expectations of interpreters and patients. GPs' expectations of informal interpreters' roles significantly differed from both the patients', as well as from informal interpreters' expectations, except for the role of the conduit, the expectations of which did not differ between the three groups (see Table 2).

Both the patients and informal interpreters mainly expected lifeworld agent roles, that is, advocate, information source, emotional supporter and counselor. The role of the institutional gatekeeper was the least expected role. In contrast to informal interpreters and patients, the GPs least expected the advocacy role. GPs did not expect the institutional gatekeeper role either, but mainly expected the conduit role from informal interpreters (see Table 2).
Table 2. Differences in Expectations of Interpreters’ Roles between the Patients, Interpreters and GPs

Thus, except for the conduit role, we accept H1, by concluding that patients and informal interpreters indeed have similar expectations of the informal interpreter’s role (mainly expecting the lifeworld agent roles), but that the expectations of the GPs are different from both the patients and the informal interpreters (mainly expecting the system agent roles).

Patient’s control and trust: Which role expectations are the best predictor?

Direct effects on patients’ perceived control. In line with H2, patients’ expectations of emotional supporter, information source and cultural broker roles were positively related to patients’ perceived control of the consultation (see Table 3).
Table 3. Mediation analyses: Direct Effects (DE) and Indirect Effects (IE) of Role Expectations on Perceived Control and Cognitive and Affective Trust

<table>
<thead>
<tr>
<th>Lifeworld agent roles</th>
<th>Perceived Control DE Effect (SE) [95%BCBCI]</th>
<th>Cognitive trust DE</th>
<th>Affective trust DE</th>
<th>Cognitive trust IE via control</th>
<th>Affective trust IE via control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional support</td>
<td>.45 (.10) [.25,.65]***</td>
<td>.25 (.12) [01,.49]*</td>
<td>.06 (.03) [-.01,.12]</td>
<td>.13 (.08) [.02,.32]</td>
<td>.03 (.03) [-00,.12]</td>
</tr>
<tr>
<td>Advocate</td>
<td>.20 (.11) [-.01,.42] †</td>
<td>.22 (.11) [.00,.44]*</td>
<td>.07 (03) [.02,.13]*</td>
<td>.07 (06) [-.01,.23]</td>
<td>.02 (02) [-00,.07]</td>
</tr>
<tr>
<td>Information source</td>
<td>.27 (.10) [.07,.47]**</td>
<td>.13 (.11) [-.08,.35]</td>
<td>.06 (.03) [.00,.10]*</td>
<td>.10 (.07) [.00,.28]</td>
<td>.02 (02) [-00,.10]</td>
</tr>
<tr>
<td>Cultural Broker</td>
<td>.19 (.07) [.04,.33]**</td>
<td>-.02 (.08) [-.18,.14]</td>
<td>.05 (.02) [.01,.09]*</td>
<td>.08 (.05) [.00,.21]</td>
<td>.02 (02) [-00,.06]</td>
</tr>
<tr>
<td>Counselor</td>
<td>.02 (.09) [-.14,.21]</td>
<td>.14 (.09) [-.04,.31]</td>
<td>.03 (.02) [-.02,.08]</td>
<td>.01 (.03) [-.06,.09]</td>
<td>.00 (.01) [-.01,.02]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>System agent roles</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduit</td>
<td>.09 (.08) [-.08,.26]</td>
<td>.15 (.08) [-.01,.32]</td>
<td>-.01 (.02) [-.05,.04]</td>
<td>.03 (.03) [-.01,.13]</td>
<td>.01 (.01) [-.00,.04]</td>
</tr>
<tr>
<td>Institutional gatekeeper</td>
<td>.05 (.07) [-.09,.19]</td>
<td>.18 (.07) [.04,.32]*</td>
<td>.03 (.02) [-.01,.06]</td>
<td>.02 (02) [-.02,.09]</td>
<td>.00 (01) [-.00,.03]</td>
</tr>
</tbody>
</table>

† p<0.07 *p<0.05; ** p< 0.01; ***p< 0.001

Note. Model controlled for interpreters' gender and patients' language proficiency.
We also found a marginally significant relation between the expected role of the advocate and increased patients’ perceived control. Contrary to our expectations, the expected role of the counselor was not related to an increase in patients’ perceived control. Thus, the results largely confirm the hypothesis that the patients’ higher expectations of the lifeworld agent roles are related to increased perceived control of the patient; H2 holds true for all lifeworld agent roles, except for the role of the counselor.

**Direct effects on patients’ trust in the interpreter.** In line with H3, we found a positive relation between most lifeworld agent roles (i.e., emotional supporter, advocate, information source, and cultural broker) and patients’ trust in the informal interpreter. The expectations of the information source role and of the cultural broker role were only related to patients’ affective trust and the expectations of the emotional supporter role were only related to patients’ cognitive trust. The expectation of the advocate role was related to both cognitive and affective trust of the patients. Furthermore, contrary to our expectations, we also found a positive relation between the expected role of institutional gatekeeper and patients’ cognitive trust. Thus, the results largely confirm the hypothesis that patients’ higher expectations of the lifeworld agent roles are related to patients’ increased trust in the interpreter; H3 holds true for all lifeworld agent roles, except for the role of the counselor and also applies to the system agent role of institutional gatekeeper.

**Mediated effects on patients’ trust in the interpreter.** In order to answer RQ1, we found a mediated relationship between the expected interpreters’ role and patients’ increased trust via control as a mediator for the expected role of the emotional support, the role of information source and the role of cultural broker. These roles were only related to patients’ increased cognitive trust. We did not find any mediated relations between patients’ role expectations and patients’ affective trust.

**Discussion**

The present study has compared the expectations of GPs, patients and informal interpreters on the role of the interpreter and has linked patients’ expectations of the role of the informal interpreter to their perceived control and trust in order to corroborate previous qualitative findings and to integrate the different key concepts (i.e., interpreters’ role, control and trust) in one study.
The comparison of the three perspectives on the expectation of the interpreter’s role has confirmed previous findings from qualitative studies that informal interpreters tend to align with the patients in their expectations of the interpreter’s role (Green et al., 2005; Ho, 2008; Zendedel et al., 2016a). Also, in line with previous research, the role of the advocate was the most expected role of the informal interpreter by patients and informal interpreters (Zendedel et al., 2016a), and the role of the institutional gatekeeper their least expected one, which fits with the system versus lifeworld theory (Greenhalgh et al., 2006). The GPs’ expectations differed significantly from patients’ and informal interpreters’ expectations on all roles except for the conduit role, which indicates that there is a clash of expectations between the GP on the one hand, and informal interpreters and patients on the other hand. This finding might explain the loss of control of the GPs described in previous studies (Meeuwesen et al., 2010; Rosenberg et al., 2007) and their mistrust in the informal interpreter (Gadon et al., 2007), as the informal interpreters obviously define their role in contrast to GPs’ expectations. Furthermore, we are now better able to understand the positive experiences of patients with informal interpreters (Hilder et al., 2016; Zendedel et al., 2016b), as informal interpreters have shown to align with patients’ expectations of their role. Hence, after comparing the expectations of the three interlocutors we are better able to explain the contradictory findings in previous studies about the practice of informal interpreting.

Moreover, our findings have shown that predominantly the expectations of the lifeworld agent roles (especially that of the emotional supporter) lead to increased patients’ perceived control, which might explain why migrant patients often prefer informal interpreters over professional ones and are satisfied with their help (Edwards et al., 2005, Hilder et al., 2016). The results of our study indicate that the ideal role of the interpreter as expected by patients is not the conduit, who “simply” converts the information from one language into another, which is traditionally seen as the ideal role of the professional interpreter (Dysart-Gale, 2005). Conversely, the expectations of the lifeworld-agent roles, (i.e., emotional supporter, advocate, information source and cultural broker) which require an active and partial stance of the informal interpreter are shown to increase patients’ perceived control. Thus, our study provides statistical support for the earlier discussed advantages of lifeworld-agent roles for perceived control of the patients (Brisset et al., 2013; Greenhalgh et al., 2006).

Regarding patients’ trust in the interpreter, the present study shows that the role of the advocate and the role of emotional supporter, which are widely expected by patients from informal interpreters, significantly increase patients’ cognitive trust. This finding indicates
that these lifeworld agent roles are the ones which are expected from a competent
interpreter according to migrant patients, as the cognitive trust dimension was based on
patients’ trust in informal interpreters’ competence. It seems that interpreters’ competence
is defined differently by patients compared to health care providers and scholars who
attach much more importance to the neutral role of the interpreter (e.g., Cox, 2015). Thus,
the present study has added the patients’ perspective to previous research findings, which
has been understudied due to the difficult access to the research population (Brisset et
al., 2013).

Despite the merits of our study, there are also some limitations. First, we have studied
a particular population, namely Turkish migrant GP patients in the Netherlands, which
means that the results of our study might not be generalizable to other populations and
settings. It is therefore important to replicate this study among different migrant groups and
in different medical settings to enlarge the generalizability of the findings. Second, we have
studied correlational data, which prevents us from drawing causal conclusions. However,
corrrelational research is the first step to explore the relationship between the different
factors, which should be verified in future experimental studies. Third, in this study we
have related patients’ expectations of interpreters’ roles to patients’ perceived control and
trust. Future observational studies should investigate whether the informal interpreters
actually perform the roles which are expected from them by patients and whether these
performed roles are also related to higher patients’ control and trust.

Apart from these study limitations, the present study is one of the first to combine the
different interpreter roles mentioned in previous literature and to quantitatively compare
the GPs’, migrant patients’ and informal interpreters’ perspective on these roles. Our study
largely confirms the findings from qualitative studies, which contributes to the consolidation
of previous research. Besides, this study was the first to statistically relate the different
issues (i.e., interpreter’s role, control, and trust) to each other, which moves us closer to
an explanatory framework of informal interpreting in medical settings. The emphasis on
the patients’ perspective is one of the greater merits of the present study, as the patients’
perspective is often lacking from medical-interpreting research. It is crucial to investigate
the patients’ perspective in order to align the health care provision with patients’ wishes
and needs. The findings of our study could also be used to design a training for GPs
and informal interpreters in order to improve the communication process in interpreter-
mediated interactions.