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**DOI**

[10.1080/10810730.2016.1240269](https://doi.org/10.1080/10810730.2016.1240269)

**Publication date**

2016

**Document Version**

Final published version

**Published in**

Journal of Health Communication

**License**

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[Link to publication](#)

**Citation for published version (APA):**

Schinkel, S., Schouten, B. C., Street, R. L., van den Putte, B., & van Weert, J. C. M. (2016). Enhancing health communication outcomes among ethnic minority patients: The effects of the match between participation preferences and perceptions and doctor-patient concordance. *Journal of Health Communication, 21*(12), 1251-1259. <https://doi.org/10.1080/10810730.2016.1240269>

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# Enhancing Health Communication Outcomes Among Ethnic Minority Patients: The Effects of the Match Between Participation Preferences and Perceptions and Doctor–Patient Concordance

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Ethnic minority patients are less participative in medical consultations compared to ethnic majority patients. It is thus important to find effective strategies to enhance ethnic minority patients' participation and improve subsequent health outcomes. This study therefore aimed to investigate the relation between the match between patients' preferred and perceived participation and doctor–patient concordance in preferred doctor–patient relationship on patient satisfaction, fulfillment of information needs, and understanding of information among Turkish-Dutch and Dutch patients. Pre- and postconsultation questionnaires were filled out by 136 Dutch and 100 Turkish-Dutch patients in the waiting rooms of 32 general practitioners (GPs). GPs completed a questionnaire too. Results showed that a match between patients' preferred and perceived participation was related to higher patient satisfaction, more fulfillment of information needs, and more understanding of information than a mismatch for both patient groups. For doctor–patient concordance a conditional main effect on all outcome measures emerged only among Turkish-Dutch patients. That is, for patients who were discordant with their GP, higher perceived participation was related to lower satisfaction, worse fulfillment of information needs, and worse understanding of the information. In order to improve medical communication GPs should thus primarily be trained to tailor their communication styles to match patients' preferences for participation.

In medical consultations with ethnic minority patients more miscommunication and less active patient participation are experienced and observed than in medical consultations with patients sharing the same ethnic and cultural background as their health care provider (Rocque & Leanza, 2015; Schouten & Meeuwesen, 2006). Furthermore, ethnic minority patients are less satisfied with their care, have more unmet information needs, and have lower understanding of information after the consultation than patients from majority populations (Mead & Roland, 2009; Schinkel, Schouten, & van Weert, 2010, 2013). Several explanatory factors have been put forward for the communication difficulties and worse communication outcomes among ethnic minority patients, such as language barriers and culture-related differences in illness beliefs, preferences for, and expectations about information and participation (Helman, 2001; Levinson, Kao, Kuby, & Thisted, 2005; Schenker et al., 2010; Scheppers, Van Dongen, Dekker,

Geertzen, & Dekker, 2006; Suurmond & Seeleman, 2006; Suurmond, Uiters, de Bruijne, Stronks, & Essink-Bot, 2011).

Previous studies on preferences for *patient participation*, which can be defined as “the extent to which patients produce verbal responses that have the potential to significantly influence the content and structure of the interaction as well as the health care provider's beliefs and behaviors” (Street & Millay, 2001, p. 62), have indeed shown that ethnic minority patients generally prefer a less active role during the medical encounter compared to ethnic majority patients (e.g., Benbassat, Pilpel, & Tidhar, 1998; Kim et al., 2000; Levinson et al., 2005). In addition, results of observational research indicate that ethnic minority patients also display less participative behavior during medical consultations. They ask fewer questions and make fewer requests and treatment suggestions compared to ethnic majority patients (e.g., Gordon, Street, Sharf, & Soucek, 2006; Schouten, Meeuwesen, Tromp, & Harmsen, 2007). The more passive role of ethnic minority patients during medical encounters might be problematic, because active patient participation has been theorized to be positively associated with both proximal communication effects (e.g., greater understanding of information) and intermediate outcomes (e.g., increased treatment adherence), ultimately leading to better health and well-being (Street, Makoul, Arora, & Epstein, 2009). However, a systematic review showed that only 44% of interventions designed to enhance the interaction between patients and physicians and

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stimulate patient participation had significant positive effects on outcomes (Griffin et al., 2004). Hence, the general idea that merely activating patients to become more participative will lead to better outcomes does require more nuance. A more fruitful approach might be to match patients' preferred levels of participation with their actual participation levels, which we explain in more detail in the next paragraph.

### Matching Patients' Preferred and Actual Levels of Participation

As stated previously, ethnic minority patients prefer less participation than ethnic majority patients (e.g., Benbassat et al., 1998; Kim et al., 2000; Levinson et al., 2005), and trying to involve them more during medical consultations than they actually want might have counterproductive effects. Previous studies have indeed shown that pressuring patients to be more involved than they want in the decision-making process provokes anxiety (Hack, Degner, & Dyck, 1994), lower satisfaction with care and decisional regret (Lantz et al., 2005), and less confidence in having made the correct treatment choice (Lam, Fielding, Chan, Chow, & Ho, 2003). Instead of advocating patient participation as such, a more fruitful approach might be to establish a good match between patients' preferred levels of participation and their actual levels of participation. A literature review investigating the effects of matching patients' preferred levels of participation with their (perceptions of) actual participation levels indeed showed that such a match leads to higher patient satisfaction, more fulfillment of information needs, and more positive affect than a mismatch among cancer patients, primary care patients, and ambulatory care patients (Kiesler & Auerbach, 2006).

Because Western physicians' communicative roles have shifted away from a paternalistic mode toward a more patient-centered one, in which shared decision making and respect for patients' autonomy have become core elements of doctor–patient interactions (Mead & Bower, 2000), the worse communication outcomes among ethnic minority patients compared to ethnic majority patients might partly be the result of a mismatch between ethnic minority patients' relatively low preferences for participation and Western physicians' patient-centered communicative behaviors, as the latter might trigger overinvolvement of patients during the consultation. As explained previously, this overinvolvement might have adverse consequences (Hack et al., 1994; Lam et al., 2003; Lantz et al., 2005). Hence, the worse health communication outcomes of ethnic minority patients compared to those of ethnic majority patients might partly be explained by a stronger mismatch between patients' preferences for participation and actual (or perceived) participation levels during the medical consultation. To our knowledge no research has yet been done comparing the influence of a match/mismatch on outcomes between ethnic minority and ethnic majority patients. Therefore, the first aim of this study is to investigate the influence of the (mis)match between patients' preferred and perceived actual participation on patient satisfaction, fulfillment of information needs, and understanding of information.

### Doctor–Patient Concordance

A trend related to the matching strategy as outlined previously in research on medical communication with ethnic minority patients is to investigate whether doctor–patient concordance on certain attributes has a positive influence on the medical communication process and its outcomes. The majority of studies on doctor–patient concordance involve race concordance, referring to medical consultations with patients and doctors who belong to (dis)similar ethnic/racial groups. Though some studies have suggested that race concordance leads to higher patient satisfaction compared to race discordance (Cooper, Powe, & Fund, 2004; LaVeist, Nuru-Jeter, & Jones, 2003), a review on the effects of race concordance yielded inconclusive results. Only a third of the reviewed studies showed evidence of positive outcomes; the remaining studies found either mixed effects or no effects at all (Meghani et al., 2009). A more fruitful approach might therefore be to research the effects of other types of doctor–patient concordance, such as concordance in preferred doctor–patient relationship. Doctor–patient concordance in preferred doctor–patient relationship refers to the agreement between doctors and patients about their orientation toward each other and the treatment approach, such as doctor-centeredness (e.g., the physician setting the agenda for the consultation, making decisions, and thus hardly including the patient in the decision-making process) versus patient-centeredness (e.g., the patient and doctor setting the agenda together and engaging in shared decision making; Kiesler & Auerbach, 2006; Krupat et al., 2000).

Previous research findings have shown that ethnic minority patients generally have a higher preference for a doctor-centered relationship than ethnic majority patients, who more often prefer a more patient-centered relationship (e.g., Saha, Arbelaez, & Cooper, 2003; Schinkel, Schouten, van den Putte, Kerplick, & van Weert, 2015). Because earlier studies have indicated that doctor–patient concordance in preferred doctor–patient relationship positively affects patient outcomes, such as increased satisfaction and treatment adherence (Chan & Azman, 2012; Cousin, Mast, Roter, & Hall, 2012; Jahng, Martin, Golin, & DiMatteo, 2005; Krupat, Bell, Kravitz, Thom, & Azari, 2001; Krupat et al., 2000; Street et al., 2009; Williams & Ogden, 2004), a lack of concordance between ethnic minority patients' doctor-centered preferences and Western health care providers' patient-centered approach might partly explain why ethnic minority patients are less satisfied with the care they receive, have fewer fulfilled information needs, and have less understanding of information compared to ethnic majority patients. Hence, the second aim of this study is to investigate the influence of doctor–patient concordance in preferred relationship on medical communication outcomes.

### Target Groups

In our study, we focus on Turkish-Dutch general practice patients as ethnic minority group because they form the largest ethnic minority group in The Netherlands (around 400,000; Central Bureau of Statistics, 2014) and visit their general practitioners (GPs) more frequently compared to both ethnic majority

patients and other Dutch ethnic minority groups (Uiters, Deville, Foets, & Groenewegen, 2006). We focus on GPs because in The Netherlands more prescribed medication use, higher use of the GP, and less usage of specialized care are found among ethnic minority patients compared to the Dutch majority group (Stronks, Ravelli, & Reijneveld, 2001; Uiters et al., 2006).

## Methods

### Procedure

Between September and December 2014, Turkish-Dutch and Dutch patients were recruited to participate in waiting rooms of GPs. Inclusion criteria for patients were (a) having an appointment with the GP for themselves, (b) being at least 18 years old, and (c) being able to read in Dutch or Turkish or being accompanied by someone who could read in these languages. We recruited both Dutch and bilingual Turkish-Dutch assistants for data collection. The Turkish-Dutch patients were primarily recruited by the Turkish-Dutch assistants because they are known to decrease concerns these patients might have about their immigration status and to lessen possible mistrust of institutions, lack of familiarity, and distrust of research, all leading to easier data collection (Hoopman, Terwee, Muller, Öry, & Aaronson, 2009). After signing the informed consent form in the waiting room, participants were given a preconsultation questionnaire. Following the consultation with the GP, they were given a postconsultation questionnaire. Both questionnaires were available in Dutch and Turkish. GPs were given their questionnaire during data collection days and could return it to the assistants or e-mail a copy to the first author.

The patient questionnaires were pilot-tested twice among low-educated and low-literate Dutch and Turkish-Dutch people to ensure that all items were comprehensible to the targeted populations. The questionnaire was translated into Turkish by a professional translation service. Two Turkish-Dutch assistants subsequently checked the translation for grammar and understandability. The study was approved by the Ethical Committee of the Amsterdam School of Communication Research (No. 2014-CW-68).

### Participants

A total of 107 GP practices in multicultural cities in The Netherlands were approached, of which 10 participated (9.3%). Because multiple GPs worked in each practice, a total of 32 GPs (18 men, 14 women) participated. The most common reasons for not participating were too little time, too busy of a practice, too many research projects during the year, or currently ongoing research projects in their practice. GPs were recruited based on their relatively large Turkish patient population: two practices consisted of around 90%, six practices consisted of around 30%, and two practices consisted of around 15% Turkish patients. GPs participated with seven patients on average (range = 1–14).

In total, 236 patients (136 Dutch and 100 Turkish-Dutch patients) out of 366 eligible patients participated (64% response). Figure 1 shows the flow diagram. The ethnic distribution of patients who were unwilling to participate was similar to that of the participating patients,  $\chi^2(1) = 0.99, p = .320$ .

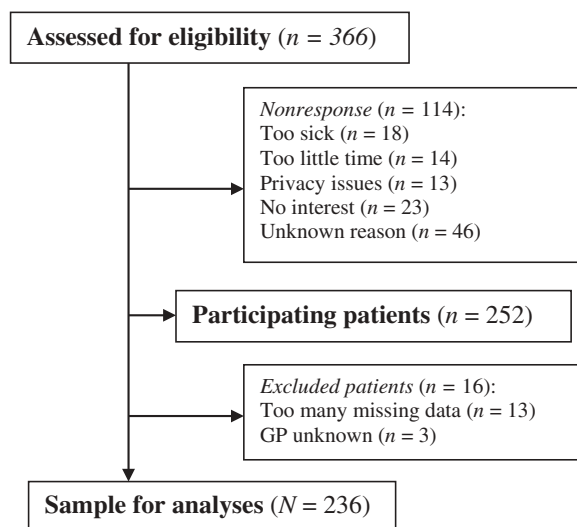


Fig. 1. Flow diagram of the patient sample. GP = general practitioner.

## Measures

### Preconsultation Patient Questionnaire Measures

**Sociodemographic Variables.** The definition of ethnicity from the Dutch Central Bureau of Statistics was used to assess the respondents' ethnicity. Respondents born in The Netherlands and with both parents born in The Netherlands were categorized as Dutch; respondents born in The Netherlands or Turkey and having at least one parent born in Turkey were categorized as Turkish-Dutch. For Turkish-Dutch patients, group identification and language proficiency were assessed. Group identification was measured using the ethnic identity measure of Stevens, Pels, Vollebergh, and Crijnen (2004). Patients could indicate their group identification by answering two questions about the extent to which they felt they belonged to either the Dutch or Turkish culture on a 5-point scale, ranging from (1) *totally disagree* to (5) *totally agree*. Dutch and Turkish language proficiency was assessed by patient self-report on a 5-point scale ranging from (1) *not at all* to (5) *excellent*. For both the group identification and language proficiency measures, first, the scores for Turkish culture and Turkish language were subtracted from those for Dutch culture and Dutch language, respectively. Second, both scores were divided into three subgroups according to the procedure of Harmsen, Bernsen, Buijnzeels, and Meeuwesen (2008): (a) more Turkish identification/Turkish language proficiency than Dutch identification/Dutch language proficiency (range scores  $-4$  to  $-2$ ), (b) equal Turkish and Dutch identification/language proficiency (range scores  $-1$  to  $1$ ), and (c) more Dutch identification/Dutch language proficiency than Turkish identification/Turkish language proficiency (range scores  $2$  to  $4$ ). Because the third group consisted of only three Turkish-Dutch patients, these patients were excluded from the regression analyses. Thus, one dummy variable (i.e., more Turkish vs. equal) for, respectively, group identification and language proficiency was included in the regression models. For the total sample, gender, age, education level, and health status were assessed, the latter being measured with a single

item assessing how patients perceived their health on a 5-point scale ranging from (1) *poor* to (5) *excellent*.

*Preferred Patient Participation.* To measure patients' preference for participation, we used eight items from the Patient Information Scale and Patient Decision Making Scale of the Patients' Perceived Involvement in Care Scale (Lerman et al., 1990). Patients could indicate the importance of eight participation activities for the upcoming consultation on a 4-point scale ranging from (1) *not important* to (4) *very important* (with a "not applicable" option for activities not relevant to that consultation). Items were simplified for low-literate patients to statements such as "I find it important to ask the GP many questions," "... propose a certain treatment," or "... express concerns about the GP's advice." The scale had good reliability ( $\alpha = .83$ ; Dutch group = .80, Turkish-Dutch group = .84).

The preference scores were divided into high (scores 3 and 4 = 1) and low (scores 1 and 2 = 0) importance for participation for each item. To take into account inapplicability of items per patient, we first determined the number of answers that were applicable. Next the number of high-importance items was divided by the number of applicable items, and this score was multiplied by the total number of items in the scale (8). Thus, patients who reported finding six of the eight topics highly important and scored two items as inapplicable received the same participation preference score as patients who reported finding all eight topics highly important. Preferred patient participation scores thus ranged from 0 to 8, with higher scores reflecting a higher participation preference.

*Preferred Doctor–Patient Relationship.* To measure the extent to which patients preferred a patient- versus doctor-centered consultation, we used nine items from the Patient-Practitioner Orientation Scale (Krupat et al., 2000). We only used those items that covered topics that according to the results of a previous study were deemed important by Turkish-Dutch patients (Schinkel et al., 2015). Items were simplified for low-literate patients to statements such as "The GP should decide what is being said" and "It is disrespectful to disagree with the GP." Patients could indicate their agreement with the statements on a 5-point scale ranging from (1) *totally disagree* to (5) *totally agree*. Higher scores represent a higher preference for doctor-centered consultations (with two reversed items). Reliability analyses suggested removing two items, "Patients should be treated as equals" and "Warm and open GPs are better than distant GPs," from the scale. The remaining seven items had satisfactory reliability ( $\alpha = .73$ ; Dutch group = .75, Turkish-Dutch group = .65).

#### *Postconsultation Patient Questionnaire Measures*

*Perceived Patient Participation.* To measure perceived patient participation, we used the same eight items as for preferred patient participation in the preconsultation questionnaire (the Patient Information Scale and Patient Decision Making Scale of the Patients' Perceived Involvement in Care Scale; Lerman et al., 1990). Patients could indicate whether they (0) did not perform or (1) did perform the behavior during their consultation, with a "not applicable" option for every item. To calculate patients' perceived participation, we used the same procedure as

for preferred patient participation. Perceived patient participation thus also ranged from 0 to 8, with higher scores reflecting higher perceived participation.

*Satisfaction.* To assess how satisfied patients were with the communication and their doctor, we used five items from the Patient Satisfaction Scale (Poulton, 1996). Patients could indicate their agreement with items such as "I am satisfied with the conversation I just had with the GP" and "There was enough time to discuss everything" on a 5-point scale ranging from (1) *totally disagree* to (5) *totally agree*. Reliability was high ( $\alpha = .93$ ; Dutch group = .96, Turkish-Dutch group = .88).

*Fulfillment of Information Needs.* Fulfillment of information needs was measured with a single item for which patients could indicate their agreement with "I have discussed everything I wanted to discuss" on a 5-point scale ranging from (1) *totally disagree* to (5) *totally agree*.

*Understanding of Information.* Patients could indicate to what extent they understood the information discussed during the consultation with a single item measured on a 5-point scale ranging from (1) *totally disagree* to (5) *totally agree*.

#### *GP Questionnaire Measures*

Besides background characteristics such as age, gender, practice experience, and having received intercultural training, GPs were asked to report their preferred doctor–patient relationship using the same scale as in the preconsultation patient questionnaire. The scale score was computed similarly to the patients' scores. In addition, GPs' intercultural orientation was measured by combining items from the Cultural Sensitivity Scale and Intercultural Communication Effectiveness Scale (Ulrey & Amason, 2001). GPs could indicate to what extent they agreed with eight items regarding intercultural orientation, such as "I can communicate well with patients from other cultures" and "I understand the perspective of patients from other cultures," on a 5-point scale ranging from (1) *totally disagree* to (5) *totally agree*. Reliability of the scale was good ( $\alpha = .81$ ).

#### *Calculation of the Match Between Patients' Preferred and Perceived Participation*

To calculate the match between patients' preferred and perceived participation, we subtracted the perceived participation scores from the preferred participation scores. These discrepancy scores ranged from  $-7$  to  $8$ . To take into account the fact that patients' perceived participation never exactly matched their preferences (Kiesler & Auerbach, 2006), we used half of the number of items as the cutoff point for discrepancy scores: Patients with discrepancies less than  $-4$  or greater than  $4$  were categorized as having unmatched preferences (score = 1), and patients with discrepancy scores between  $-4$  and  $4$  were categorized as having matched preferences (score = 0).

#### *Calculation of Doctor–Patient Concordance Scores*

Concordance between patients and GPs in preferred doctor–patient relationship was calculated by first subtracting standardized GP scores from standardized patient scores. The doctor–patient concordance score in preferred doctor–patient relationship

ranged from -3.89 to 3.68. Higher positive or negative discrepancy scores represented lower concordance between GPs and patients. Patients were divided into two groups: concordant or discordant with their GP, with a cutpoint of 1.5, resulting in around 25% of patients in the discordant group.

**Analyses**

Differences between the groups in sociodemographic characteristics and pre- and postconsultation scores were assessed with chi-square tests and *t* tests. Relationships between doctor-patient concordance, perceived patient participation, and match between patients' preferred and perceived participation on the one hand and communication outcomes on the other hand were assessed by separate multilevel regression models for Turkish-Dutch and Dutch patients, with the GP as a random effect to account for the nested nature of the patient data. All models controlled for health status, age, and education. For Turkish-Dutch patients, we also controlled for language proficiency and group identification.

**Results**

**GP Sample**

As shown in Table 1, a small majority of GPs was male, their mean age was 47.8 (range = 31-65), they had worked as GPs for an average of 15.8 years (range = 2-37), and they reported a relatively high intercultural orientation (*M* = 3.56 on a 5-point scale, *SD* = 0.42). In addition, the majority of GPs reported being trained in intercultural communication (68.8%). A total of 29 GPs were Dutch, one GP was of Turkish origin, and two were from non-Dutch European countries (Germany and Slovenia).

**Patient Sample**

Table 2 provides an overview of the patient sample. Dutch patients were significantly older, were more highly educated, and perceived their health status as better than Turkish-Dutch patients: older,  $t(227.62) = 5.24, p < .001$ , range = 18-89; more highly educated,  $\chi^2(2) = 6.41, p = .041$ ; better health status,  $\chi^2(2) = 17.67, p < .001$ . The groups did not differ in terms of

**Table 2.** Patient sample

Characteristic	Dutch ( <i>N</i> = 136)	Turkish-Dutch ( <i>N</i> = 100)
Gender, <i>n</i> (%)		
Male	49 (36.0)	35 (35.0)
Female	87 (64.0)	65 (65.0)
Mean ( <i>SD</i> ) age in years***	53.46 (19.85)	41.90 (13.62)
Education level, <i>n</i> (%)*		
Low	42 (31.3)	43 (43.9)
Intermediate	66 (49.3)	46 (46.9)
High	26 (19.4)	9 (9.2)
Perceived health status, <i>n</i> (%)**		
Bad/very bad	43 (31.6)	59 (59.0)
Moderate	81 (59.6)	35 (35.0)
Good/excellent	12 (8.8)	6 (6.0)
Company during consultation, <i>n</i> (%)		
No companion (alone)	108 (80.6)	66 (66.0)
Partner	13 (9.7)	12 (12.0)
Child	7 (5.2)	14 (14.0)
Parent(s)	2 (1.5)	3 (3.0)
Other	4 (3.0)	5 (5.0)
Language proficiency, mean ( <i>SD</i> )		
Dutch language (1-5 scale)		3.34 (1.33)
Turkish language (1-5 scale)		4.57 (0.69)
Identification, mean ( <i>SD</i> )		
Dutch culture		2.65 (1.39)
Turkish culture		4.39 (1.06)

\**p* < .05. \*\*\**p* < .001.

gender or having company during the consultation. The Turkish-Dutch patients reported significantly higher Turkish language proficiency than Dutch language proficiency and higher identification with Turkish culture than with Dutch culture: language proficiency,  $t(89) = -9.29, p < .001$ ; group identification,  $t(94) = -8.07, p < .001$ . As shown in Table 3, Turkish-Dutch patients reported a higher preference for a more doctor-centered relationship, a higher preference for patient participation, higher perceived participation, lower satisfaction, marginally lower fulfillment of information needs, and lower understanding of the information than Dutch patients: doctor-centered relationship,  $t(232) = -2.27, p = .024$ ; preference for patient participation,  $t(232.56) = -3.88, p < .001$ ; perceived participation,  $t(223.54) = -3.37, p < .001$ ; satisfaction,  $t(225) = 2.55, p = .011$ ; fulfillment of information needs,  $t(224) = 1.87, p = .063$ ; understanding of the information,  $t(223) = 2.83, p = .005$ .

**Predictors of Communication Outcomes: Dutch Patients**

Among Dutch patients a match between preferred and perceived participation was found to positively affect all communication outcomes (see Table 4). Dutch patients with matched preferences regarding patient participation reported higher satisfaction ( $M_{\text{matched}} = 4.47, M_{\text{unmatched}} = 3.92; p = .021$ ), better fulfillment of information needs ( $M_{\text{matched}} = 4.34, M_{\text{unmatched}} = 3.69; p = .009$ ), and better understanding of the information

**Table 1.** GP sample (*N* = 32)

Characteristic	<i>n</i> (%)	<i>M</i> ( <i>SD</i> )	Range
Gender			
Male	18 (56.3)		
Female	14 (43.7)		
Age		47.78 (11.65)	31-65
Practice experience			
Years working as a GP		15.80 (11.88)	2-37
Has own practice	23 (71.9)		
Intercultural experience			
Intercultural orientation (5-point scale)		3.56 (0.42)	
Received intercultural communication training	22 (68.8)		

Note. GP = general practitioner.

**Table 3.** Mean (SD) scores on pre- and postconsultation measures by patient group

Measure	Dutch (N = 136)	Turkish-Dutch (N = 100)
<i>Preconsultation</i>		
Preferred patient participation (0–8 scale)	5.63 (2.45)	6.72 (1.89)***
Preferred doctor-centered relationship (vs. patient-centered; 1–5 scale)	3.01 (0.74)	3.24 (0.82)**
<i>Postconsultation</i>		
Perceived patient participation (0–8 scale)	5.37 (2.12)	6.26 (1.89)***
Satisfaction with communication (1–5 scale)	4.43 (0.68)	4.21 (0.61)*
Fulfillment of information needs (1–5 scale)	4.34 (0.72)	4.15 (0.74)†
Understanding of information (1–5 scale)	4.41 (0.65)	4.13 (0.80)**

† $p < .10$ . \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

( $M_{\text{matched}} = 4.42$ ,  $M_{\text{unmatched}} = 3.79$ ;  $p = .007$ ) than patients with unmatched preferences. No effects were found for doctor–patient concordance and perceived patient participation on any of the communication outcomes.

#### Predictors of Communication Outcomes: Turkish-Dutch Patients

Among Turkish-Dutch patients, a match between preferred and perceived participation positively affected all communication outcomes (see Table 5). Turkish-Dutch patients with matched preferences regarding patient participation reported higher satisfaction ( $M_{\text{matched}} = 4.21$ ,  $M_{\text{unmatched}} = 3.65$ ;  $p = .052$ ), higher fulfillment of information needs ( $M_{\text{matched}} = 4.30$ ,  $M_{\text{unmatched}} = 2.07$ ;  $p < .001$ ), and higher understanding of information ( $M_{\text{matched}} = 4.30$ ,  $M_{\text{unmatched}} = 2.41$ ;  $p < .001$ ) than patients with unmatched preferences. In addition, Turkish-Dutch patients reporting better health status were more satisfied ( $p = .030$ ) and reported better understanding of the information ( $p = .012$ ). Turkish-Dutch patients with equal language proficiency in Turkish and Dutch language were more satisfied

( $M_{\text{equal}} = 4.16$ ,  $M_{\text{moreTurkish}} = 3.71$ ;  $p = .005$ ) and reported better fulfillment of information needs ( $M_{\text{equal}} = 3.38$ ,  $M_{\text{moreTurkish}} = 2.99$ ;  $p = .040$ ) than patients who reported more Turkish language proficiency than Dutch language proficiency. Cultural identification did not affect any of the communication outcomes.

No main effects on any of the communication outcomes were found for doctor–patient concordance. However, a conditional main effect of doctor–patient concordance in preferred doctor–patient relationship dependent on perceived patient participation was found on all three outcomes (although marginally significant on understanding of the information). That is, for patients who were discordant with their GP in the preferred doctor–patient relationship, higher perceived participation was related to lower satisfaction, worse fulfillment of information needs, and worse understanding of the information. For Turkish-Dutch patients who were concordant with their GP in the doctor–patient relationship, perceived patient participation was not related to any of the communication outcomes. Subsequent analyses among the discordant patient group revealed that Turkish-Dutch patients were discordant on both sides: 16% of patients scored higher than their doctor on patient-centeredness, and 13% of patients scored lower than their doctor on patient-centeredness. In both discordant groups higher perceived patient participation was related to worse communication outcomes (sample sizes were too small to test for significance).

#### Discussion

The first aim of this study was to investigate the effects of the match between patients' preferred and perceived participation on patient satisfaction, fulfillment of information needs, and understanding of information differences among Turkish-Dutch and Dutch patients. The second aim was to investigate how doctor–patient concordance in preferred doctor–patient relationship affects those communication outcomes among Turkish-Dutch and Dutch patients. In line with other research suggesting more negative communication outcomes among ethnic minority patients (e.g., Mead & Roland, 2009), the results overall show that Turkish-Dutch patients report lower satisfaction, worse fulfillment of information needs, and worse understanding of information than Dutch patients. The findings further indicate that the match between preferred and perceived patient participation has a stronger influence on communication outcomes than doctor–

**Table 4.** Effects of matched preferences, doctor–patient concordance, and perceived participation on communication outcomes among Dutch patients (N = 136)

Predictor	Satisfaction		Fulfillment of information needs		Understanding	
	Estimate (SE)	p	Estimate (SE)	p	Estimate (SE)	p
Match patient's preferred-perceived participation (ref = matched)	0.55 (.23)	.021	0.65 (.24)	.009	0.63 (.23)	.007
Doctor–patient concordance in preferred relationship (ref = concordant)	0.71 (.47)	.131	0.62 (.49)	.207	0.54 (.46)	.237
Perceived patient participation	0.07 (.07)	.355	0.05 (.08)	.541	0.06 (.07)	.364
Perceived Patient Participation × Concordance in Preferred Relationship	−0.12 (.08)	.155	−0.08 (.08)	.335	−0.08 (.08)	.328

Note. Model controlled for age, health status, and education, which did not significantly influence any communication outcomes. ref = reference group.

**Table 5.** Effects of matched preferences, doctor–patient concordance, and perceived participation on communication outcomes among Turkish-Dutch patients ( $N = 97$ )

Predictor	Satisfaction		Fulfillment of information needs		Understanding	
	Estimate ( <i>SE</i> )	<i>p</i>	Estimate ( <i>SE</i> )	<i>p</i>	Estimate ( <i>SE</i> )	<i>p</i>
Match patient's preferred-perceived participation (ref = matched)	.57 (.29)	.052	2.23 (.35)	.000	1.88 (.37)	.000
Doctor–patient concordance in preferred relationship (ref = concordant)	−1.66 (.54)	.003	−1.60 (.66)	.018	−1.32 (.69)	.059
Perceived patient participation	−0.24 (.07)	.002	−0.19 (.09)	.040	−0.06 (.09)	.519
Perceived Patient Participation × Concordance in Preferred Relationship	0.23 (.08)	.005	0.22 (.10)	.027	0.17 (.10)	.088
Language proficiency (ref = more Turkish)	−0.45 (.15)	.005	−0.39 (.19)	.040	−0.27 (.19)	.176
Identification culture (ref = more Turkish)	−0.02 (.12)	.874	−0.07 (.15)	.664	0.02 (.16)	.883

*Note.* Model controlled for age, health status, and education. Health status significantly influenced satisfaction and understanding of information (estimates: .17 [.08],  $p = .030$ ; .26 [.10],  $p = .012$ , respectively). The main effects of doctor–patient concordance in preferred relationship were only present after we included the interaction term with perceived patient participation. ref = reference group.

patient concordance, with the latter only showing a conditional main effect among Turkish-Dutch patients.

The match between patients' preferred and perceived participation was found to positively affect all communication outcomes among both Dutch and Turkish-Dutch patients, corroborating and extending the results of the literature review of Kiesler and Auerbach (2006). A match between patients' preferred and perceived patient participation enhances patients' satisfaction, fulfillment of information needs, and understanding of information irrespective of a low or high level of perceived participation. By tailoring their interactional styles to patients' preferences for participation, GPs can thus improve crucial communication outcomes for both ethnic majority and ethnic minority patients. Hence, to decrease communication difficulties between doctors and patients in intercultural encounters, GPs should be trained to better accommodate ethnic minority patients' preferences for participation during the consultation, regardless of whether those are low or high. Using such a matching communication strategy positively influences patient outcomes (see also Flocke, Miller, & Crabtree, 2002).

Contrary to our expectations and findings of previous studies (Chan & Azman, 2012; Cousin et al., 2012; Jahng et al., 2005; Krupat et al., 2000, 2001; Street et al., 2009; Williams & Ogden, 2004), no main effects of doctor–patient concordance on patient satisfaction, fulfillment of information needs, or understanding of information for either patient group were found in this study. A possible explanation for the lack of significant findings might be that doctor–patient concordance in preferred doctor–patient relationship was calculated with doctor scores that were reported once, not for every patient, following the procedure of Krupat and colleagues (2000). Because it is possible that there is some variation in GPs' preferences depending on the individual patient, future research should measure concordance by means of separate doctor scores per patient. In addition, measuring patients' perceived concordance with the GP (Street, O'Malley, Cooper, & Haidet, 2008) instead of measuring concordance using separate doctor and patient scores might be an interesting avenue for future research too.

Although doctor–patient concordance did not independently affect the outcomes in our study, a conditional main effect of doctor–patient concordance in preferred doctor–patient relationship dependent on perceived patient participation among Turkish-Dutch patients emerged. The finding that communication outcomes are worse for Turkish-Dutch patients who are discordant with their doctor in preferred relationship when their perceived participation is high corresponds with the results from a qualitative study that revealed that Turkish-Dutch patients felt discomfort with being highly involved when their preferred relationship (i.e., more doctor centered) was not met by the GP (Schinkel et al., 2015). In this previous study, Turkish-Dutch patients explicitly mentioned frustration when their GP stimulated them in a direct manner to become more involved (with questions such as “What do you think I should do?”). Thus, when a GP prefers patient-centered consultations more than the patient, that GP might stimulate the patient to become overinvolved, leading to higher (perceived) patient participation but worse communication outcomes (see also Hack et al., 1994; Lam et al., 2003; Lantz et al., 2005).

The finding that negative effects on communication outcomes also emerged among Turkish-Dutch patients who preferred a more patient-centered relationship than their GP is difficult to explain and warrants more research. Apparently, when Turkish-Dutch patients prefer a more active role than their GP and are, as a consequence, highly involved during the medical consultation, some elements of the interaction between GPs and their patients hinder an adequate understanding of information, subsequently leading to less fulfilled information needs and lower patient satisfaction. Investigating the actual communication process between GPs and ethnic minority patients by using observational data will give more insight into what happens during the encounter and might explain this effect between doctor–patient concordance in preferred relationship and actual patient participation on consultation outcomes in more detail.

Although Turkish-Dutch patients report relatively positive communication outcomes, they still experience worse communication outcomes than Dutch patients. Considering that GPs in



our study were relatively highly interculturally oriented and trained in intercultural communication, communication outcomes among patients consulting GPs who are less aware of and/or trained in cultural differences will probably be worse. Therefore, our findings are hard to generalize to all GPs. Because it is hard to reach GPs who are less interested in or aware of difficulties in intercultural health communication for research purposes, it could be interesting to develop experimental studies that use video vignettes in which GPs' behavior is simulated to be more doctor or patient centered and investigate how those behaviors impact communication outcomes among ethnic minority patients.

The higher preference for patient participation and higher perceived participation among Turkish-Dutch patients compared to Dutch patients are surprising findings, because most studies report a lower preference for participation and lower participation levels among ethnic minority patients (e.g., Schouten & Meeuwesen, 2006). The higher scores in our sample could be explained by measurement differences (Say, Murtagh, & Thomson, 2006). We asked patients to indicate (the importance of) their communicative contribution during the encounter, whereas most other studies focused on different aspects of patient participation, such as shared decision making or communication symmetry. Ethnic minority patients might more strongly prefer to participate in the discussion rather than the decision making itself. Ethnic minority patients' preferences for participation in both communication and decision making should therefore be investigated in future studies as separate concepts.

In conclusion, the match between preferred and perceived patient participation is a strong predictor of communication outcomes, whereas doctor-patient concordance is not. Hence, doctors need to become more aware of both cultural and individual differences in patients' participation preferences and trained in being able to adjust their communicative behavior to these differences. Increasing the match between patients' preferred and perceived participation can be a good communication strategy to enhance the doctor-patient communication process and its outcomes, thereby leading to a higher quality of care. Merely stimulating more patient participation will not automatically enhance communication outcomes and might even backfire if patients do not want to be more participative, because such an intervention can provoke anxiety among patients (Hack et al., 1994). In sum, training doctors to elicit patients' preferences and tailor their communication styles to meet those preferences will shape a more fruitful environment in which a match between preferred and perceived preferences can be established, leading to more positive communication outcomes and better quality of care for both ethnic minority and ethnic majority patients.

### Acknowledgments

We thank all general practitioners and patients for taking part in the study and Yasemin Aydemir, Merve Bahar Kinali, Nariç Durmus, Tugba Kocabiyyik, Tessa Rutten, Ana López Swinkels, Rukiye Sorgucu, Ayse Tastan, Hatice Tunç, Fatma Turkan Okay, and Fiona Wolzak for their assistance with data collection.

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