"What do you think I should do?": Understanding intercultural medical communication in general practice

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CHAPTER 3
Health-information seeking, patient participation and communication outcomes

Abstract

This study investigated differences between Dutch and Turkish-Dutch patients with respect to media usage before and patient participation during medical consultations with GPs. In addition, the relationship between patient participation and communication outcomes was assessed. The patients were recruited in GP waiting rooms, and 191 patients (117 Dutch, 74 Turkish-Dutch) completed pre- and post-consultation questionnaires. 120 patients (62.8%; 82 Dutch, 38 Turkish-Dutch) agreed to have their consultations recorded. The 38 consultations with Turkish-Dutch patients were matched on age and gender with Dutch patients, resulting in 34 Dutch and 34 Turkish-Dutch consultations to assess patient participation. Compared with Turkish-Dutch patients of similar educational levels, the results showed that Dutch patients used different media to search for information, participated to a greater extent during their consultations and were more responsive to their GP. With respect to the Turkish-Dutch patients, media usage was related to increased patient participation, which was correlated with having fewer unfulfilled information needs; however, these relations were not found in the Dutch patient sample. In conclusion, interventions that enhance participation among ethnic minority patients will better fulfill informational needs when such interventions stimulate information-seeking behavior in that group prior to a medical consultation.

Introduction

In the US, the analysis of healthcare inequality comparing ethnic minority and ethnic majority patients generally focuses on ethnic minorities' lower rate of healthcare usage. This lower usage rate may be the result of the weaker US primary care system compared with that of other developed nations, and because of the high rates of uninsured ethnic minorities in the US (Uiters, Devillé, Foets, Spreeuwenberg, & Groenewegen, 2009). The opposite pattern prevails in the Netherlands, where health insurance is mandatory. In the Netherlands, the Turkish-Dutch population comprises the largest ethnic minority group (i.e., approximately 400,000 people or 2.4% of the Dutch population, Central Bureau of Statistics, 2012), and members of this population perceive their health as poorer, report more health problems (Lindert et al., 2004), and visit their general practitioner (GP) significantly more often than the Dutch population (Devillé et al., 2006; Uiters et al., 2006). Therefore, Dutch GPs regularly encounter Turkish-Dutch patients in consultations. Previous research has indicated that these consultations frequently result in suboptimal levels of patient satisfaction and lower perceived quality of care because of inadequate communication processes (Harmsen et al., 2008; Schouten & Meeuwesen, 2006; van Wieringen et al., 2002). Thus, to alleviate these problems, interventions should be designed to improve intercultural communication with GPs.

One widely recognized method of improving medical communication involves encouraging patients to actively participate in consultations (Street, 2001). Compared with less actively involved patients, the previous literature has shown that patients who more actively participate in medical encounters receive more information and support from their doctor, have a better understanding of their treatment (Street et al., 1995), are better equipped to make appropriate decisions (Dickerson et al., 2004; Gerber & Eiser, 2001), experience more satisfaction with their care and are more compliant (Ong, De Haes, Hoos, & Lammes, 1995; Street Jr, Gordon, Ward, Krupat, & Kravitz, 2005; van den Brink-Muinen et al., 2006). Patient participation during medical encounters is thus an important factor both for establishing an effective doctor-patient relationship and for achieving positive health-related outcomes (Street, 2001). However, in the US, ethnic minority patients exhibit patterns of lower participation during medical consultations than patients from the ethnic majority population (Cooper-Patrick et al., 1999; Johnson et al., 2004; Street Jr et al., 2005; Young & Klingle, 1996); notably, a similar pattern holds for the Netherlands (Meeuwesen, Tromp, Schouten, & Harmsen, 2007). For example, ethnic minority patients in the Netherlands ask fewer questions (Schouten et al., 2007) and provide less information and clarification (Meeuwesen et al., 2006) than Dutch patients. Given the dearth of research on the reasons for ethnic minority patients' lower participation levels, this study aims to provide insight into this topic by exploring the differences between Turkish-Dutch and Dutch patients during GP consultations in terms of possible determinants of patient participation, actual patient participation during GP consultations and communication outcomes.

Theoretical Background

This study is based on Street's model of patient participation (2001), which posits several determinants and presents several outcomes of patient participation. Overall, Street's model (2001) indicates that increased patient participation leads to better quality of care, including improvements in the quality of the information provided. Patient participation is 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, 2001, p.62); thus, patient participation refers to the communication during medical consultations in terms of the patient's contribution to the discussion. According to Street's model, patient participation is determined by predisposing factors, enabling factors and provider responses. Predisposing factors refer to background variables and motivational factors. Previous research examining such predisposing factors indicates that ethnic minority patients are less willing to participate than ethnic majority populations (Levinson et al., 2005). Enabling factors refer to patients' abilities to participate, including their knowledge about the health issue(s) and their communication skills and routines; the 'informed patient' is widely understood as an empowered patient (Henwood et al., 2003). Provider responses are beyond the scope of the current study because our focus is on determinants regarding only the patient. Because scarce attention has been given to the influence of enabling factors among ethnic minority patients, the focus of this study is on the enabling factors of patient participation and communication outcomes.

For ethnic minority patients, the ability to participate in medical consultations can be hindered by insufficient language proficiency (Street, 2001). Previous research in the US indicates that ethnic minority patients who report poor language proficiency participate less than patients with better language proficiency (Schenker et al., 2010). In addition to language proficiency, obtaining health knowledge before a medical appointment can increase patient participation during the consultation (Cahill, 1998; Street, 2001). According to Johnson's model of health information-seeking behavior (Johnson & Meischke, 1993), patients' information-seeking behavior—and consequentially, the amount of health knowledge—is dependent on health-related factors, such as their experience with diseases, their beliefs about control and information-carrier factors, such as the utility of media. This model, which combines the *uses and gratifications approach* (Katz, Blumler, & Gurevitch, 1973) and models regarding health-related behaviors and media exposure, posits that these factors will determine which medium is used to fulfill health information needs. According to this model, ethnic minority patients' media usage will most likely differ from that of the ethnic majority population because previous research has shown that ethnic minority patients generally experience health and sickness differently (Helman, 2001; Kleinman, 1980), are less active searchers for information (Dickerson et al., 2004) and have lower health literacy levels (Sudore et al., 2009) than ethnic majority patients. Indeed, research has shown that white Americans prefer books as their source of health information, whereas African Americans prefer newspapers, television and radio (Guidry, Aday, Zhang, & Winn, 1998). Furthermore, white patients prefer to use scientific and objective sources for their health information (e.g., telephone services and medical journals), whereas Japanese patients prefer commercial and media sources (e.g., television and print media; Kakai, Maskarinec, Shumay, Tatsumura, & Tasaki, 2003).

Health information can be obtained either actively or passively (Longo, 2005). Patients who obtain information passively (i.e., indirectly or accidentally) are less participative during a consultation than patients who obtain information actively (i.e., purposefully and consciously) before the consultation (Czaja, Manfredi, & Price, 2003; Radina, Ginter, Brandt, Swaney, & Longo, 2011). Because patients' pre-consultation information-seeking media usage that aims to learn information regarding their health issue can be considered as a form of actively obtaining information, these patients are more likely to actively participate during the consultation than those who did not use media (or who did so to a lesser extent).

Both Street (2001) and Longo (2005) suggest that higher participation leads to higher patient empowerment. More active patients inform their doctors more clearly

(e.g., by asking questions and asking for clarification) about what matters to them than passive patients (Cegala, Street Jr, & Clinch, 2007). As a consequence, active patients receive better information from their doctors (Street et al., 1995). These patients align the information provision from their GPs with their own needs, suggesting that more active patients have their information needs better fulfilled during consultations than less active patients.

Although a number of studies have found differences between ethnic minority patients and the ethnic majority population, these studies have primarily examined US minorities. It is unclear whether these results will be consistent with results for Turkish-Dutch patients in the Netherlands. Because Turkish-Dutch people are more likely to engage in face-saving (i.e., indirect) communication rather than engaging in direct communication (Ting-Toomey & Kurogi, 1998), it seems likely that Turkish-Dutch patients will be less assertive with their GPs than Dutch patients, which may lead to lower participation levels. Moreover, Turkish-Dutch patients have different information needs than the Dutch population (Schinkel, Schouten, & van Weert, 2013), and tend to watch television and read newspapers and magazines (i.e., consume media) from their country of origin more often than other ethnic minority groups in the Netherlands (Central Bureau of Statistics, 2012), which suggests that Turkish-Dutch patients will use different media than Dutch patients when searching for health information. In addition, because Turkish-Dutch patients have lower Dutch language proficiency than Dutch patients (Meeuwesen et al., 2006), language proficiency is likely a relevant factor for patient participation for Turkish-Dutch patients. Thus, the results found in the US may also apply to Turkish-Dutch patients. For both patient groups, media use aiming at obtaining health information will increase patient participation levels, which will enable patients to fulfill their information needs. Based on our literature review, the following hypotheses are proposed in the current study:

H1: Turkish-Dutch patients will demonstrate lower participation than Dutch patients during GP consultations.

H2: Turkish-Dutch patients will use different media sources to search for health information than Dutch patients.

H3: Turkish-Dutch patients with higher Dutch language proficiency will participate more than those with lower Dutch language proficiency.

H4: Patients who use media before their consultations will participate more than patients who do not use media.

H5: A higher level of patient participation will be related to a decrease in unfulfilled information needs.

Methods
Procedure
A total of eleven GPs (seven men and four women) from six GP practices located in three multicultural cities in the Netherlands (Rotterdam, Utrecht, Zaandam) participated in the current study. A research assistant asked all the patients in the waiting room of each practice to participate. The inclusion criteria stipulated that patients must have an appointment with the GP for themselves and must be able to read in Dutch or Turkish or be accompanied by someone who could read in Dutch or Turkish. After signing the informed consent form in the waiting room, participants were asked to complete pre- and post-consultation questionnaires. Questionnaires were available in Dutch and Turkish. Participating patient consultations were recorded on audiotape by the GP and were later transcribed verbatim. The study was approved by the ethical committee of the Amsterdam School for Communication Research (ASCoR).

Participants
In total, 191 patients (117 Dutch, 74 Turkish-Dutch) completed the pre- and post-consultation questionnaires assessing their information-seeking behavior. Of the 191 patients, 120 patients (82 Dutch, 38 Turkish-Dutch) consented to have their GP consultation recorded (see Schinkel et al., 2013 for a detailed description of the sample and non-responses). Given that the Dutch and Turkish-Dutch patients differed significantly in age and gender and that differences in information-seeking behavior and participation might be the result of these factors (Eheman et al., 2009; Mayer et al., 2007; Street Jr et al., 2005), the 38 Turkish-Dutch patients for whom audiotapes were available were matched with Dutch patients with respect to age and gender. This result led to two comparable groups of 34 Dutch and 34 Turkish-Dutch patients to assess patient participation (four Turkish-Dutch patients could not be matched by age).

Measures
Pre-consultation questionnaire measures
Socio-demographic variables

Based on the ethnicity definitions used by the Dutch Central Bureau of Statistics, respondents born in the Netherlands with both parents born in the Netherlands were categorized as Dutch, and respondents born in Turkey and/or with at least one parent who was born in Turkey were categorized as Turkish-Dutch. Other variables measured included gender, age, educational level, companion during the encounter, health problem for which the patient had an appointment (according to ICPC classification; Bentsen, 1986) and the GP's perception of the seriousness of the health problem. The latter was measured with a single item on a 5-point Likert scale, ranging from 1 (*not at all serious*) to 5 (*very serious*). For Turkish-Dutch patients, Dutch language proficiency was measured with a single self-reported item assessing the extent to which the patients believed that they were proficient in the Dutch language on a 5-point scale, ranging from 1 (*not at all*) to 5 (*excellent*).

Pre-consultation media usage

Patients reported their media usage for searching for information about their health problem using the following options: Internet, books, leaflets, magazines/newspapers, television/radio and other sources (Guidry et al., 1998; Kakai et al., 2003). Multiple answers could be provided, and answers were analyzed at the item level to assess differences in media usage between the groups. A dummy variable of 1 (*media use*) or 0 (*no media use*) was used to measure the influence of this factor on patient participation.

Pre- and post-consultation questionnaire measures
Unfulfilled information needs

For the pre-consultation questionnaire, patients rated the importance of twenty information topics to discuss with their GP on a 5-point scale, ranging from 1 (*not at all important*) to 5 (*extremely important*). For the post-consultation questionnaire, patients rated the extent to which identical information topics had been discussed during the consultation on a 5-point scale, ranging from 1 (*not at all discussed*) to 5 (*extensively discussed*). To measure unfulfilled information needs, Quality Impact Indices (QIIs) were calculated for each information item by multiplying the proportion of patients reporting low levels of information provision (< 3) with the mean importance scores for that information item, a calculation based on studies using QUOTE questionnaires (van Weert et al., 2009). For a full description of this measurement, see Schinkel et al. (2013). The QIIs were divided into the following two subscales (see Table 1): (a) unfulfilled information needs concerning primary

biomedical information (i.e., information that is necessary for diagnosis and treatment, such as diagnosis, causes and prevalence; α = .87 for Dutch and α = .92 for Turkish-Dutch group) and (b) unfulfilled information needs concerning secondary information (i.e., additional information that extends beyond purely biomedical information, such as psychosocial information, procedures at the hospital and alternative medicine; α = .89 and α = .93, respectively).

Table 1
Two subscales for the (unfulfilled) patients' information needs

Primary biomedical information	Secondary information
1. Diagnosis	1. Consequences of no treatment
2. Cause	2. Treatment without medication
3. Symptoms	3. Explanation of medical terms
4. Seriousness	4. Alternative medicine
5. Prognosis	5. Further research
6. Prevalence	6. Procedures at a hospital/other
7. Physical examination	7. Consequences for daily life
8. All possible treatment options	8. Self-treatment
9. Treatment with medication	9. Psychological aspects
10. Medication use	
11. Risks of treatment	

Observational measures
Patient participation was measured with the following measures: (a) relative talk, (b) proportion of dialogues/monologues, (c) number of questions asked by patients and (d) referrals to searched information by patients during the consultations. For the first two measurements, all the consultations were divided into two major segments: (1) medical background and (2) the discussion of diagnosis and decision-making (based on Tates & Meeuwesen, 2000). The physical examination segment of the consultation was excluded from the analysis because it involves less communication. Interrater reliability checks regarding the observational measures were conducted during observer training. The final interobserver reliability was calculated for 17 of the 68 transcripts (25%).

Relative talk
All utterances were counted and coded regarding who initiated the utterance (GP, patient or companion of the patient). An utterance is defined as the smallest part of an utterance that has a specific function, such as a question, concern or assertive act (Street, 2001; Tates & Meeuwesen, 2000). Intraclass correlation coefficients (with a two-way random model, single measures) showed almost perfect agreement (M = .98, ICC range .94-1.0) (Altman, 1991). The relative talk per person was calculated by subtracting the amount of utterances from one person during a consultation relative to the total amount of utterances for that consultation.

Proportion of dialogues/monologues
Based on the MEDICODE instrument (Richard & Lussier, 2007), coding included whether an utterance was related to a dialogue or a monologue and who initiated the dialogue or monologue (GP, patient or companion). Dyads between doctor and patient or doctor and companion were coded, whereas dyads between the patient and the companion were excluded. A dialogue refers to an utterance followed by a reaction from another party (Richard & Lussier, 2007). All types of explanations, answers and short remarks to support the utterance of the initiator were coded as reactions. A monologue code was implemented when the other party began an utterance on a different topic that was not a reaction to the preceding utterance. Intraclass correlation coefficients (with two-way random model, single measures) showed almost perfect agreement on the dialogue scores (M = .99, ICC range .97-.99) and good agreement on the monologue scores (M = .77, ICC range .67-.93) (Altman, 1991). The proportion of dialogues and monologues were calculated by subtracting the frequency of a code being present from the total frequency of all of the codes.

Number of questions asked
All questions asked by the patients were coded. Intraclass correlation coefficient showed almost perfect agreement (ICC = .97) between the coders (Altman, 1991).

Referrals to searched information during the consultation
Finally, the coding including whether patients referred to information that they searched for before the consultation. Cohen's Kappa showed good agreement (κ = .77) between the coders (Altman, 1991).

Analyses
Differences between the groups in their media usage and in the referrals to searched information by the patients prior to the consultation were measured using chi-square tests. Differences between the groups in relative talk, questions asked and the proportion of dialogues/monologues were measured with independent samples t-tests. Stepwise multiple regression models were used to measure the relationship between media use, Dutch language proficiency and patient participation (with relative talk, question asking and proportion of dialogues/monologues entered separately as dependent variables). As independent variables, step 1 included media use, and step 2 included media use and Dutch language proficiency. The relationships between patient participation and unfulfilled information needs were assessed with separate regression models for unfulfilled information needs regarding primary and secondary information as dependent variables. As independent variables, the patients' relative talk during both segments was included in one model. In the other models, the proportion of dialogues/monologues were included per consultation segment for both doctor and patient initiations.

Results
Patient sample
Table 2 provides an overview of the total sample. Turkish-Dutch patients were younger than Dutch patients, and there were more males in the Turkish-Dutch sample. Educational level, the seriousness of the problem, the health problem according to ICPC classification and the patients' companion during the consultation did not differ between the groups. The matched groups for analyzing patient participation were similar across all the background variables. No correlations between gender and the dependent variables were found; therefore, only age was taken into account in subsequent analyses.

Table 2
Sample characteristics

Patient characteristics	Dutch (N=117)	Turkish-Dutch (N=74)
*Gender**		
Men	33 (28.2%)	36 (48.6%)
Women	84 (71.8%)	38 (51.4%)
Age		
Mean age in years (SD)**	48.20 (17)	37.38 (13.5)
Educational level		
Low	43 (36.8%)	23 (31.5%)
Intermediate	51 (43.6%)	41 (56.2%)
High	23 (19.7%)	9 (12.3%)
Seriousness of problem according to GP		
Minor	68 (77.3%)	48 (81.4%)
Moderate	16 (18.2%)	8 (13.6%)
Major	4 (4.5%)	3 (5.1%)
Health problem (ICPC classification)		
General problems	17 (14.5%)	9 (13.8%)
Tractus digestivus	10 (8.5%)	6 (9.2%)
Eye	4 (3.4%)	2 (3.1%)
Ear	2 (1.7%)	1 (1.5%)
Tractus circulatorius	11 (9.4%)	1 (1.5%)
Locomotor system	28 (23.9%)	13 (20%)
Nervous system	1 (0.9%)	2 (3.1%)
Psychological problems	2 (1.7%)	6 (9.2%)
Tractus respiratorius	13 (11.1%)	3 (4.6%)
Skin	10 (8.5%)	8 (12.3%)
Endocrine problems	1 (0.9%)	0 (0%)
Urine	0 (0%)	1 (1.5%)
Genitals women	7 (6%)	1 (1.5%)
Genitals men	1 (0.9%)	0 (0%)
Unknown	8 (6.8%)	6 (9.2%)
Companion during consultation		
No companion (alone)	85 (76.6%)	50 (69.4%)
Partner	14 (12.6%)	7 (9.7%)
Child	8 (7.2%)	10 (13.9%)
Parent	4 (3.6%)	2 (2.8%)
Other	0 (0%)	3 (4.2%)
Dutch language proficiency		
Mean proficiency (SD)		3.55 (1.1)

* $p < .01$; ** $p < .001$

Differences in patient participation

Dutch patients had a significantly higher proportion of talk (M = 24.6%; SD = 9.2) during the diagnosis and decision-making segment of the consultation (M = 17.7%; SD = 10.9; $t(66)$ = 2.8; $p < .01$; see Figure 1) and asked significantly more questions (M = 4.1; SD = 3.4, range 0-14 questions) during the consultation than the Turkish-Dutch patients (M = 2.3; SD = 2.2, range 1-9 questions; $t(56.6)$ = 2.6; $p < .05$). Additionally, consultations with Dutch patients were more often characterized as dialogues, particularly during the diagnosis and decision-making segment (see Figures 2 and 3). Both doctors ($t(64)$ = 2.20, $p < .05$) and patients ($t(64)$ = 3.45, $p < .01$) initiated more dialogues with one another during consultations when the patient was Dutch than when the patient was Turkish-Dutch. More monologues were evident during both consultation segments with Turkish-Dutch patients ($t(53.02)$ = -3.38, $p < .01$; $t(53.19)$ = -4.19, $p < .001$), which indicates that the parties reacted less frequently to one another during consultations when the patient was Turkish-Dutch. In addition, the individuals who accompanied the Turkish-Dutch patients had a higher proportion of talk and initiated more dialogues during the medical background segment ($p < .05$) than the individuals who accompanied Dutch patients. More than one-third of the patients referred to information that they had previously found during the consultation (Dutch: 41.2%, Turkish-Dutch: 32.4%, ns). Although this was not significant, more Dutch patients (66.7%) who reported searching for information before the consultation referred to that information during the consultation than Turkish-Dutch patients (37.5%). Taken together, Turkish-Dutch patients participated less during the medical consultation than Dutch patients, thereby supporting our first hypothesis.
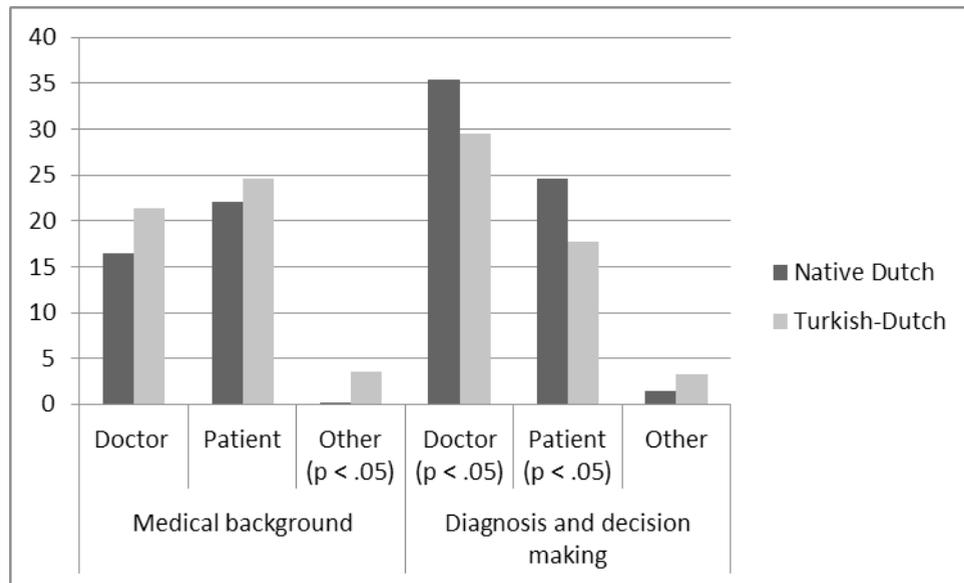
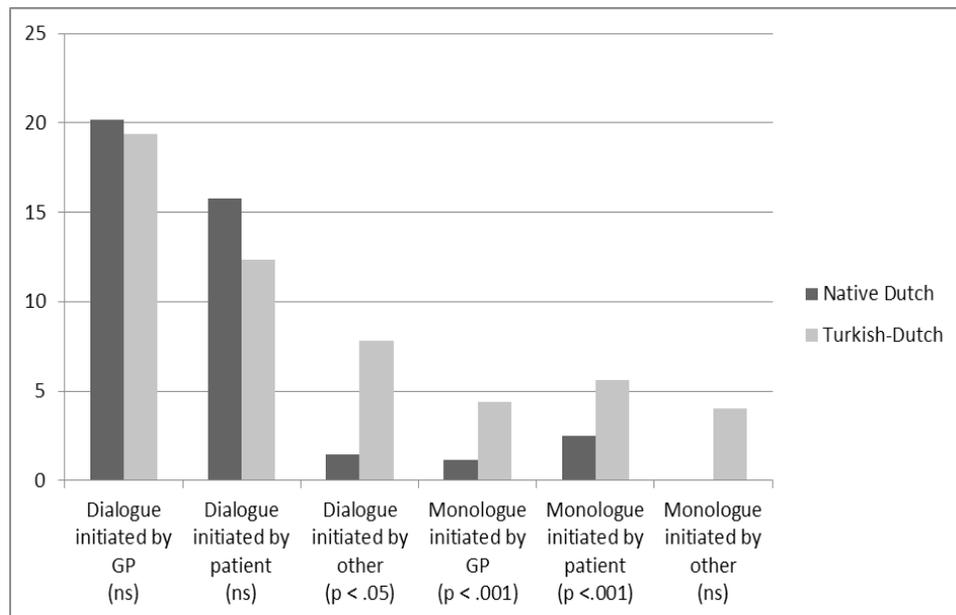**Figure 1.** *Relative talk per segment, group and person (%, n=68)*

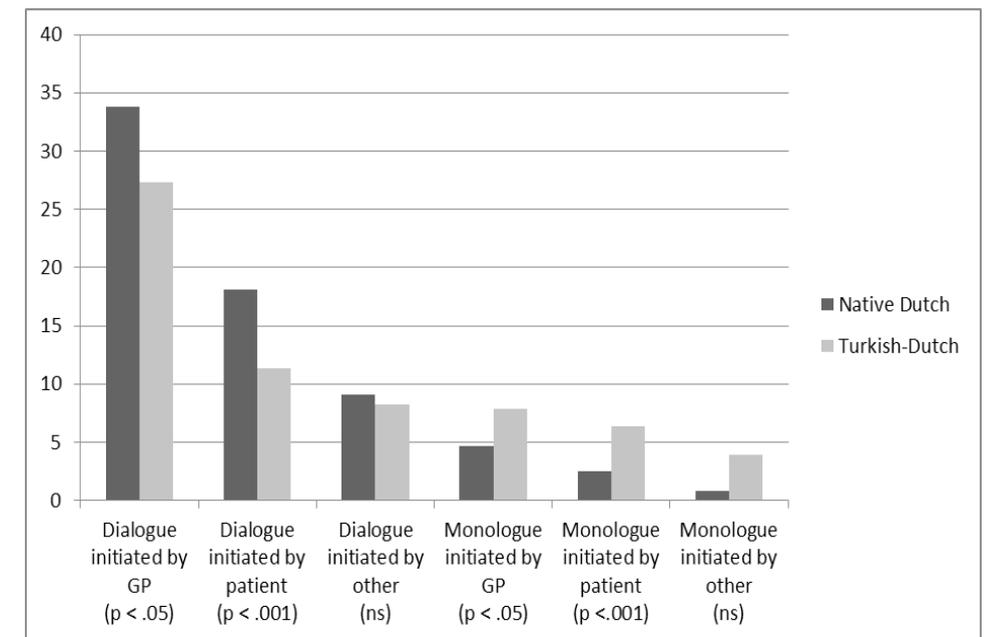**Figure 2.** *Proportion of dialogues/monologues per group for medical background segment (%, n=68)*

Figure 3. *Proportion of dialogues/monologues per group for diagnosis and decision making segment (%, n=68)*
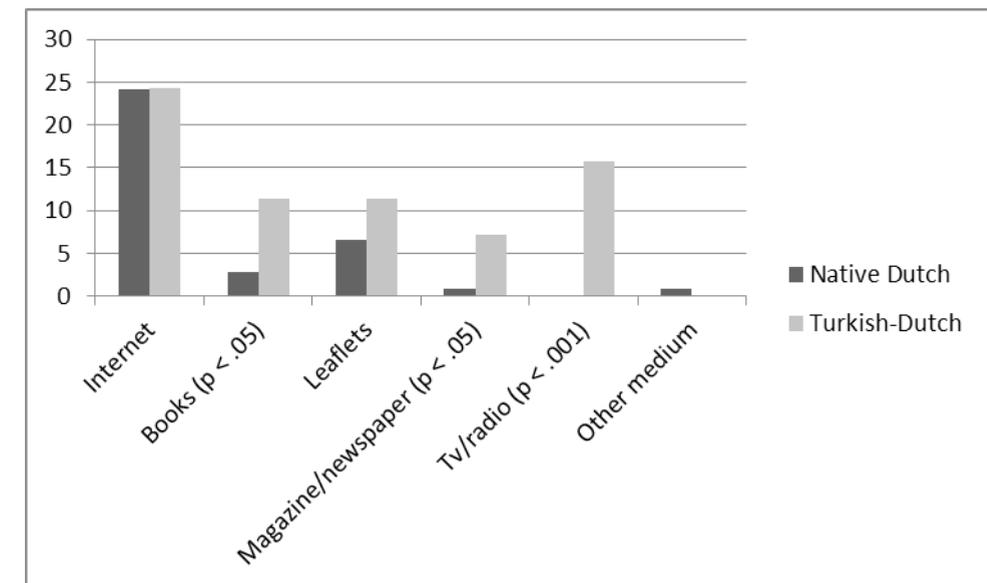

Figure 4. *Media use per group (%, N=191)*

Differences in media use

Figure 4 presents the differences in media usage between the Dutch and Turkish-Dutch patients. Approximately half of the Turkish-Dutch patients reported that they consulted a media source (45.7%), whereas the Dutch patients were less likely to have done so (27.8%) ($x^2(1) = 6.0$, $p < .05$). The Internet was the most popular media source to search for health information (Dutch: 24.1%, Turkish-Dutch: 24.3%). Turkish-Dutch patients consulted books ($x^2(1) = 5.5$, $p < .05$), magazines and newspapers ($x^2(1) = 5$, $p < .05$) and television and radio more often than Dutch patients ($x^2(1) = 18.1$, $p < .001$). Younger Dutch patients reported using the Internet more often than older Dutch patients ($r = -.27$, $p < .05$), and younger Turkish-Dutch patients reported using leaflets ($r = .31$, $p < .01$) and TV/radio ($r = .23$, $p < .07$) less often than their older counterparts. Thus, H2 was supported in that Turkish-Dutch patients used different media for health information-seeking purposes before their consultations than Dutch patients.

Enabling factors and patient participation

A relationship between enabling factors and relative talk was only evident for the Turkish-Dutch patients, and those who reported using media engaged in more relative talk regarding patients' medical background ($b =.39$, $t = 2.39$, $p < .05$). The patient's relative talk was not related to Dutch language proficiency ($b =.12$, $t = 0.74$, ns) (model 1: $R^2=.15$; $F(1, 32)= 5.71$, $p < .05$; model 2: $R^2=.16$; $F(2, 31)= 3.09$, $p < .07$). Media use prior to the consultation and Dutch language proficiency were not related to the other three dimensions of patient participation, namely, the proportion of dialogues/monologues, the amount of question-asking and referrals regarding information search, in either group. Thus, H3 was not supported: Dutch language proficiency was not related to patient participation. H4 was partly supported by the findings that the relationship was only evident for the Turkish-Dutch patients and that media use was only related to the patients' relative talk.

Patient participation and unfulfilled information needs

Table 3 presents the relationship between patient participation and each subscale for unfulfilled information needs. For the Turkish-Dutch patients, better fulfillment of information needs regarding primary biomedical information was related to more relative talk of the patient ($b = -.30$, $t = -2.25$, $p < .05$), fewer doctor dialogues ($b =.33$, $t = 2.10$, $p < .05$) and more patient monologues ($b = -.48$, $t = -2.88$, $p < .01$) during the decision-making segment.

For the Turkish-Dutch patients, better fulfillment of information needs with respect to secondary information was related to more patient dialogues during the medical background segment ($b = -.35$, $t = -2.21$, $p < .05$) and more patient monologues during the decision-making segment ($b = -.37$, $t = -2.11$, $p < .05$). These relationships were not evident for the Dutch patients. These results partly support H5 in that the relationship between patient participation and unfulfilled information needs was only evident for relative talk and the proportion of dialogues/monologues, and that this finding was only evident for Turkish-Dutch patients and not for Dutch patients.

Table 3

Regression models with effects of patient participation on unfulfilled information needs for Turkish-Dutch patients

	Unfulfilled info needs primary info		Unfulfilled info needs secondary info	
	β	t	β	t
Relative talk MB	-.25 #	-1.88	-.12	-.89
Relative talk DDM	**-.30***	-2.25	-.17	-1.26
R^2		.09		.03
Patient dialogues MB	-.31#	-1.95	**-.35***	-2.21
Doctor dialogues MB	**.33***	2.10	.28 #	1.76
R^2		.21		.21
Patient monologues MB	-.01	-.03	-.02	.10
Doctor monologues MB	-.11	-.45	-.21	-.83
R^2		.01		.04
Patient dialogues DDM	-.32	-1.80	-.16	-.88
Doctor dialogues DDM	.11	.60	.13	.71
R^2		.10		.03
Patient monologues DDM	**-.48****	-2.88	**-.37***	-2.11
Doctor monologues DDM	.11	.65	.08	.47
R^2		.21		.13

Note. MB = medical background segment; DDM = diagnosis and decision making segment
* $p < .05$. ** $p < .01$. # $p < .09$

Discussion

This study is the first to explore the relationships between pre-consultation media usage, patient participation and unfulfilled information needs with ethnic minority patients, in this case, Turkish-Dutch patients. The importance of obtaining health information (Street, 2001) is clearly reflected in the finding that the Turkish-Dutch patients who reported using media to search for information participated more in their consultations. In addition, consistent with Street's model, the Turkish-Dutch patients who were more participative experienced lower unfulfilled information needs. Thus, encouraging Turkish-Dutch patients to seek information about their health problems may make them more active communicators during consultations and may lead to greater fulfillment of their information needs.

The results clearly showed that the Turkish-Dutch and Dutch patients differed regarding their information-seeking behavior. The Turkish-Dutch patients used a wider variety of media sources in their search for health information and used these media sources more frequently than Dutch patients. With respect to the variety of sources, this result is consistent with research that suggests that ethnic minority patients tend to rely more on traditional media—such as television and leaflets—compared with ethnic majority populations (Talosig-Garcia & Davis, 2005). The high level of Internet usage among Turkish-Dutch patients contrasts with previous findings suggesting lower levels of Internet usage among minority patients (Monnier, Laken, & Carter, 2002), but this might be explained by

the high penetration of Internet access in the Netherlands. Approximately 96% of Dutch citizens currently have access to the Internet (Central Bureau of Statistics, 2012), which suggests a high rate of Internet access among Turkish-Dutch people as well.

Although the Turkish-Dutch patients used various media sources more often, the Dutch patients were generally more participative during their consultations. Dutch patients had more relative talk during their consultations, and they interacted more effectively with their GPs than the Turkish-Dutch patients. These findings are consistent with previous findings regarding ethnic minority patients in the US (Cooper-Patrick et al., 1999; Johnson et al., 2004; Street Jr et al., 2005) and with findings regarding Dutch minority patients (Meeuwesen et al., 2007) showing less patient participation and different interaction patterns (Meeuwesen et al., 2006) among ethnic minority populations compared with the ethnic majority population. Although education is generally understood as an important predictor of patient participation (Street Jr et al., 2005), the results of the current study show that other factors play a role—such as cultural factors—because the Turkish-Dutch and the Dutch patient groups had similar educational levels. Our results indicate that Turkish-Dutch patients had higher relative talk during the medical background segment and lower relative talk during the diagnosis and decision-making segment of the consultation, which suggests that these patients may be less critical and involved during these segments of the medical consultation, perhaps because they believe that this is the doctor's responsibility. The greater power distance among the Turkish population compared with the Dutch population (Hofstede, 2001) may lead Turkish-Dutch patients to place more responsibility on their doctors than on themselves. To explore these differences, future qualitative research should investigate patients' willingness to be involved in the consultation process.

A relationship between high levels of Dutch language proficiency and greater patient participation was expected, because previous research has indicated that patients must be comfortable with the language used to actively engage in a discussion with their doctors (Meeuwesen et al., 2006; Schenker et al., 2010). This hypothesis was not supported, perhaps because the language in which the information is sought is more important than the patients' Dutch language proficiency. When patients read and think in Turkish about their health problems, they may experience difficulty explaining that information in Dutch to their GP, even when their general language proficiency in Dutch is adequate. Further research should explore these relationships. A second possibility is that the companions in the Turkish-Dutch consultations—who contributed more to the conversation than those in the Dutch consultations—might have acted as informal interpreters, thereby decreasing the level of patient participation. Previous research has shown that patients in interpreter-mediated medical consultations talk less compared with dyadic conversations with migrant patients (Aranguri, Davidson, & Ramirez, 2006). However, because of the small sample size of the accompanied consultations in this study, we were not able to statistically test this interaction. Future research should explore the influence of an informal interpreter on migrant patients' level of participation.

For the Turkish-Dutch patients, unfulfilled information needs were related to patient participation. Specifically, more relative talk from the patient and more dialogues initiated by the patient were related to lower unfulfilled information needs regarding both primary and secondary information. Given that more dialogues initiated by the doctor were related to more unfulfilled information needs, fulfilling information needs may depend more on the patient's contributions and initiations than on the interaction between doctor and patient. Thus, consistent with Street's model (2001), encouraging Turkish-Dutch patients to more actively participate in consultations may be important for improving communication

outcomes. It is important to note that medical communication is a two-way interaction with the GP as the lead party. Therefore, GPs should encourage Turkish-Dutch patients to be more open and participate in the communication process and to express their misunderstandings and disagreements about diagnoses and decisions (Harmsen et al., 2003). Further research is required to investigate techniques to encourage communication through interventions at the level of the GP practice and outside the consultation room to empower Turkish-Dutch patients in consultations.

Notably, media use was only related to the relative contribution of the patients, whereas the patients' relative contribution and interactions during consultations were related to unfulfilled information needs. Thus, enabling factors may influence certain aspects of patient participation, which may lead to certain communication outcomes. Future research should examine the different aspects of patient participation to explore the relationships between enabling factors, patient participation and communication outcomes.

Dutch patients did not exhibit relationships between media use and patient participation and between patient participation and unfulfilled information needs, which may be the result of different motivational factors. According to the model of information-seeking behavior (Johnson & Meischke, 1993), specific motivations to search for information may be related to certain types of media usage. Additionally, Longo's model (2005) posits that how health information is used during consultations depends on a combination of contextual and personal factors, including cultures, attitudes and motives. Specific motivations and attitudes might lead to particular usage of the information that is learned. Future research should explore the influences of motivations and attitudes toward media usage when searching for health information prior to a consultation.

A strength of the current study is that patients reported their actual searching behavior before their consultations, not their intended behavior. Therefore, these findings reflect real rather than hypothesized settings. Additionally, this study coded the patients' behavior during their consultations, which made it possible to draw conclusions about their actual participation rather than their intended or preferred participation. However, a number of limitations should be discussed. First, although participation was measured via consultation audiotapes that were recorded after patients completed the pre-consultation questionnaire, the causality of the relationship between information-seeking behavior and patient participation cannot be fully established. Whether patients searched for information because they want to be involved or they became more involved because of their information–seeking behavior should be further explored using experimental methods.

Second, this study's small sample size for measuring patient participation makes it difficult to generalize the findings to a larger population. Despite the fact that the groups, which were similar in age, gender and educational level, still exhibited certain differences, follow-up studies with larger samples are advised to replicate our results. The small sample size was due to the relatively high non-response rate from Turkish-Dutch patients, which is a common issue in cross-cultural health research (Hussain-Gambles, Atkin, & Leese, 2004). Given that most Turkish-Dutch patients refused to participate in this study because of audiotaping, more efforts must be made to encourage these patients to participate in observational research, for instance, by using research assistants who belong to the same ethnic community as the migrant patients.

Third, the pre-consultation questionnaire inquired about the importance of information needs, which may have prompted patients to be more participative than they might normally be because it stimulated more awareness of patients' preferences, which might have led to increased participation. Additionally, although patients' information–

seeking behavior was measured in relation to their current health issues, they could have been reporting on a more general health information search. Follow-up studies with designs that include and exclude a pre-consultation questionnaire are recommended.

To conclude, the findings of the current study suggest that motivating patients to search for health information may help empower them. To encourage Turkish-Dutch patients to be more open and participative, GPs should explicitly inquire about whether patients sought information prior to the consultation and whether the patients have any questions. One way to accomplish this is to implement question prompt lists, which can positively affect communication outcomes (Brandes, Linn, Butow, & van Weert, 2015). By using such lists, patients may become more actively involved in the medical consultation, which may lead to increased fulfillment of their information needs. Health care for migrant patients can be enhanced by empowering ethnic minority patients to become more actively involved in their own health both before and during medical consultations.