WHEN CULTURES MEET IN MEDICAL PRACTICE

Improvement in intercultural communication evaluated

Rotterdam
Intercultural
Communication
In
Medical setting

STUDY

J.A.M. Harmsen

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Improvement in intercultural communication evaluated

The ***R***otterdam ***I***ntercultural ***C***ommunication in ***M***edical setting ***Study***

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WHEN CULTURES MEET IN MEDICAL PRACTICE

Improvement in intercultural communication evaluated

Cultuurverschillen in medische consulten

Evaluatie van verbetering in interculturele communicatie

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Voor mijn dochters Eva en Roos

Contents

CHAPTER 1
GENERAL INTRODUCTION

Background to the studies

Working in an urban general practice in a deprived neighborhood for 23 years it was clear from the beginning that contacts with patients from an ethnic minority were sometimes problematic. Although this did not really manifest itself at the level of the personal relationship, there were indeed some barriers in communication. In general, ethnic minority patients were loyal and polite and on the one hand had the same worries and questions as Dutch patients, on the other hand in a substantial number of medical encounters the contact appeared to be difficult. The reason for this included: not understandable or recognizable reasons for the encounter, lack of patient's compliance from the physician's point of view, impossibility of discussing psycho-social matters, and a high frequency of encounters.

It was obvious that language was not the only barrier: the cultural background appeared to play an even more important role. In 1982 Dorrenboom clearly indicated cultural difficulties in contacts with ethnic minority patients by describing a number of cases [1]. Similar to most other physicians, in those days I expected that in the course of time these patients would integrate in Dutch society, become acquainted with the Dutch healthcare system, and would adapt to a new (Western) formulation of health problems and their solutions. I also expected that the second generation of ethnic minority patients would have less problems and would be more adapted to Dutch society and healthcare. Although in this latter group of patients Dutch language proficiency did increase over time it was obvious that cultural differences remained important in the physician-patient encounter and, consequently, the difficulties remained. It was not until the end of the decade 1980-1990 that publications appeared about differences in delivery of (primary) healthcare between patients from different ethnic origins [2-5]. It became increasingly clear that physicians experienced their contacts with a large proportion of 'culturally different' patients as problematic [6]. Concurrently, ethnic minority patients also experienced their relationship with the physician as difficult [6, 7]. Leeflang found culturally-defined differences in ways of asking for medical help within the group of Turkish patients compared with Dutch patients [8]. Furthermore, communication with patients from different ethnic origins seems to be disturbed by more than a lack of language proficiency alone [9].

This generated the question: What are the possible causes, consequences and solutions for difficulties in intercultural medical encounters, especially regarding the communication between physician and patient, and which consequences arise from it for the physician-patient relationship and for primary healthcare in general?

Before implementing solutions for improvement of the communication and relationship between physician and 'ethnic or culturally different' patients, it was necessary to gain more insight in culturally determined differences in the contact and communication between them. This immediately raised another point of confusion, namely the use of different terminology to designate the patient's origin: ethnic minority, non-native, allochtonous and cultural minority are often used, but generally are intended to express the same meaning. For origin I prefer the use of the word

ethnic or ethnicity (and words with the same connotation, such as allochtonous) as indicator for another (non-Dutch) country of origin, using the patient's own and parental country of birth as parameters [10]. Differences in cultural background are best referred to as 'cultural minority' or simply 'cultural background' and when it is necessary to mention the country of origin in relation to differences in cultural background, to speak of a 'Western' or 'non-Western' country of origin.

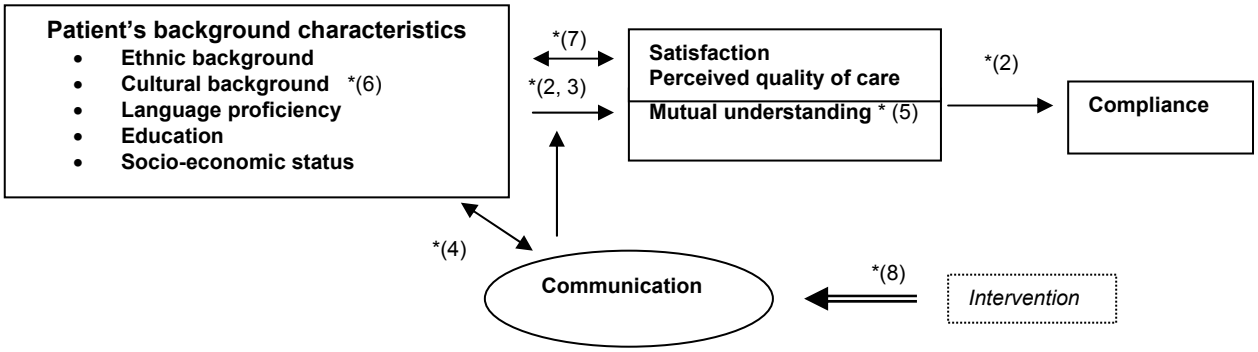
Causes of difficulties in the patient-physician relationship are mainly communication problems due to lack of language proficiency and due to cultural barriers. In Kleinman's theory patient and physician have different views on health and illness and he calls this someone's 'clinical reality' [11]. For the physician the disease is the biomedical disorder as learned during professional education. For the patient illness is the complaint(s) and body malfunction experienced by themself or by their relatives. This difference in the perception of illness and disease is common to all patient-physician relationships, but it will be greater when physician and patient have a different cultural background. Undoubtedly the physician will have a better sense of the cultural reality of a patient with the same cultural background as themself, because of a similar socialization process and experiences in the period before medical education. This point of reference is missing in contacts with patients with a cultural background different from one's own. According to Kleinman, patient and physician should exchange explanatory models of their views (clinical reality) in order to understand each other and, hopefully, come to agreement [12] .
Most physicians will experience an increasing number of encounters with communication problems because there is an increasing number of ethnic minority patients in the larger cities in the Netherlands, and because the cultural background changes rather slowly through successive generations.

Consequently in the physician patient-relationship, the patient's reasons for the medical encounter are more often misunderstood or perceived as not being appropriate by the physician [6]. Patients do not understand their physician and feel they are not understood by their physician; therefore they perceive that a lower quality of care is given to them. Due to lack of understanding and lack of satisfaction the patient's compliance decreases [13]. Consequences for healthcare in general are perceived frustration by physicians because of not achieving optimal care, increased workload and an increased number of unsatisfied patients [6, 7, 14]. One of the most important responsibilities of medicine (and therefore for each individual physician) is to deliver optimal care regardless of the patient's background [15-17]. For me, the question then arose how differences in quality of care, especially quality of communication with patients from a different ethnic origin, could be decreased. Kleinman indicated that it is was important for physician and patient to exchange their explanatory models [11]. Pinto's theory of cultural structure was clear in recognizing and explaining cultural differences, especially differences in views, opinions and communication [18, 19]; his three-step method was in conformity with Kleinman's theory of exchanging explanatory models. Therefore, Pinto's three-step method was considered suitable for an intervention to improve intercultural patient-physician communication. The aim was to improve mutual understanding between physician and patient in order to improve the patient's perceived quality of

care and compliance to advised therapy or treatment. Mutual understanding was to be measured using Kleinman's construct on agreement about clinical reality. Physician and patient should understand each other's opinions and expectations rather than merely reaching agreement; this because exchanging views and opinions, according to Kleinman's theory, is a prerequisite for achieving agreement about clinical reality. Because both parties are responsible for their joint communication an intervention should be given to both physician and patient.

Investigated relations

The formulated question (What are the possible causes, consequences and solutions for difficulties in intercultural medical encounters, especially regarding the communication between physician and patient, and which consequences arise from it for the physician-patient relationship and for primary healthcare in general?) led to investigations of the relationships indicated in this diagram:



* The numbers in the figure indicate the number of the chapter investigating that relationship.

The different relations led to the following specific questions of this thesis and their answers as structured in the different chapters. Our first study was performed in 1996 and is presented in Chapter 4. Our second study followed in 1998 and is presented in Chapters 2 and 3. In these first two studies we investigated consultations with child patients. In 2000 we performed our main study** which is presented in Chapters 5, 6, 7, 8 and 9; in this study we decided only to excluded adolescents aged 12 to 17 years, because we expected that they would have problems with answering the type of questions posed.

** Rotterdam Intercultural Communication study In Medical setting Study: RICIM Study

Structure of the thesis

Because GPs experienced difficulties in communication and perceived less patient compliance, the first question in chapter 2 (Intercultural communication in general practice. [20]) is: *Do differences in ethnic origin lead to differences in understanding between patient and physician and if so, what are the consequences for compliance?* Here we focused on differences in ethnic origin of patients and discussed the influence of differences in cultural background

This in turn generated the question answered in chapter 3 (When cultures meet in general practice [21]): *Is the cultural or ethnic background in relation to other characteristics (e.g. language proficiency, socio-economic status, education etc.), most important for explaining found differences between patients?* In this chapter we focus more on cultural differences instead of differences in ethnic origin.

In chapter 4 (GP consultations with foreign children. Communication between ethnic minority patients and general practitioner [22]) investigates the question*: Can differences in communication between physician and patients with different ethnic or cultural backgrounds be measured, when we assume that cultural differences do influence the communication between patient and physician? If so, are these differences related to consultation outcomes such as duration of the consultation and prescription of medication?* In this, first performed study (1996) we started by focusing more on ethnic differences but shifted later to a discussion about the importance of cultural differences.

In the course of the study it became clear that it was necessary to develop an instrument to measure mutual understanding between GP and patient and, secondly, to develop an instrument measuring the patient's cultural background more objectively in a quantitative manner.

In chapter 5 (Do patients and physicians in a multicultural population understand each other?) we present the development and validation of a scale for mutual understanding between the patient and physician.

In chapter 6 the development and validation of a scale measuring the patient's cultural background is presented. The scales described in chapter 5 and 6 are intended to be used in our subsequent quantitative studies.

In chapter 7 (Perceived quality of care and satisfaction in multicultural consultations) the question is answered: *Is the patient's perceived quality of care and satisfaction influenced by their cultural or ethnic background?* The quality of the delivered medical care is generally regarded as one of the most important outcomes of the consultation. This quality is not only determined by professional standards but also by patients' perceptions.

However, the most important question, answered in chapter 8 (Does an educational intervention in general practice decrease differences in quality of care between patients with a Western and a non-Western cultural background) is*: Is it possible to decrease the differences in mutual understanding, satisfaction and perceived quality of care, between patients with different ethnic and/or cultural background?*

Finally, chapter 9 discusses the most important findings of the work presented here. Recommendations for medical education, training and retraining of physicians, but also for educating and instructing culturally different patients about the use of healthcare and expectations, are given.

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CHAPTER 2

INTERCULTURAL COMMUNICATION IN GENERAL PRACTICE

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Abstract

Background: Little is known about the causes of problems in communication between health care professionals and ethnic-minority patients. Not only language difficulties, but also cultural differences may result in these problems. This study explores the influence of communication and patient beliefs about health (care) and disease on understanding and compliance of native-born and ethnic-minority patients.

Methods: In this descriptive study seven general practices located in a multi-ethnic neighbourhood in Rotterdam participated. Eighty-seven parents who visited their GP with a child for a new health problem took part: more than 50% of them belonged to ethnic-minorities. The consultation between GP and patient was recorded on video and a few days after the consultation patients were interviewed at home. GPs filled out a short questionnaire immediately after the consultation. Patient beliefs and previous experiences with health care were measured by different questionnaires in the home interview. Communication was analysed using the Roter Interaction Analysis System based on the videos. Mutual understanding between GP and patient and therapy compliance was assessed by comparing GP's questionnaires with the home interview with the parents

Results: In 33% of the consultations with ethnic-minority patients (versus 13% with native–born patients) mutual understanding was poor. Different aspects of communication had no influence on mutual understanding. Problems in the relationship with the GP, as experienced by patients, showed a significant relation with mutual understanding. Consultations without mutual understanding more often ended in non-compliance with prescribed therapy.

Conclusion: Ethnic-minority parents more often report problems in their relationship with the GP and they have different beliefs about health and health care from native-born parents. Good relationships between GP and patients are necessary for mutual understanding. Mutual understanding has a strong relation with compliance. Mutual understanding and consequently compliance is more often poor in consultations with ethnic-minority parents than with native-born parents.

Introduction

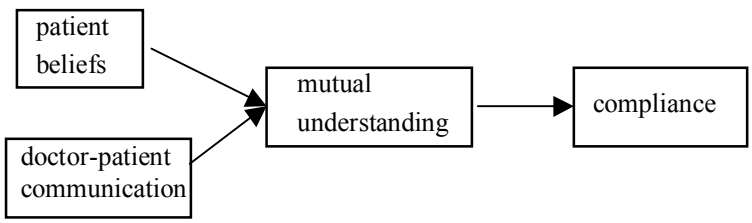
The population in the Netherlands, as in the rest of Europe, has become more diverse over the past 40 years as people from other countries came to settle in the Netherlands. More than one million of the 15 million inhabitants of the Netherlands are members of ethnic-minority groups, mainly from the former Dutch colonies of Surinam, the Dutch Antilles and Aruba, and from Morocco and Turkey, where cheap labour was recruited**.**

In the big cities (Amsterdam, Rotterdam, The Hague and Utrecht) about half of the children are born from ethnic-minority parents [1]. When these children have a medical problem it is very important that their parents can understand health care workers because of the dependency of children on their parents for treatment and care. But there are many problems in communication between health care workers and ethnic-minority people, leading to incorrect diagnoses, non-compliance with treatment and inappropriate use of health services [2]. Although little is known about the cause of the communication-problems, it is not only a language problem, but also cultural differences expressed in the way people think about health, disease and health care [3]. Personal experience, family attitudes and group beliefs shape patient beliefs [4]. The health beliefs of (Western) physicians are shaped by their own cultural background and by their biomedical and clinical training and are based on a scientific medical paradigm [5]. The health beliefs of people from other cultures are often not concordant with those of Western health care workers, hence the risk of misunderstanding.

Many people from ethnic-minority groups have a low level of education and thus have difficulties in understanding the information given by health care professionals. Kleinman [6] argued that health care outcomes (compliance, satisfaction, etc.) are directly related to the degree of cognitive disparity between the explanatory models of practitioner and patient and to the effectiveness of clinical communication. Communication in this article is the interaction between at least two persons who exchange messages and makes each other successfully aware of their feelings and ideas by verbal and non-verbal behaviour.

The aim of this study is to explore the influence of communication and patient beliefs on understanding and compliance of native-born and ethnic-minority patients (figure 1).

Figure 1 Aim of the study



Methods

The study was carried out in a locum-group of eight general practitioners working in seven general practices with a mixed ethnic population in Rotterdam. All general practitioners, except one, were native-born. The non-native born GP was born in Aruba, but took her medical education in The Netherlands.

All parents, who visited their GP with a child under the age of 12 for a new health problem, were asked to participate. Follow-up consultations for the same problem were excluded because of bias by previous contacts. When parents agreed, they signed an informed consent form. The consultation was recorded on video and a home-visit followed a few days after the consultation. Parents were assured that the GP would not be told about the results of the home-visit.

For five weeks in the general practices a total number of 142 parents were asked to participate. Of these 28 parents (19.7%) refused immediately, mostly because they were against participating in any research project or because they did not want a home-visit or video recording. Due to logistic inaccuracies (wrong addresses, missed appointments) in 28 cases after initial participation the home interview did not take place.

Immediately after the consultation the GP was asked to register his/her perception of the reason for the visit, the cause, the diagnosis, the prescribed therapy and whether he/she thought he/she had fulfilled the expectations of the patient by means of a structured questionnaire.

The home visit took place within three to five days after the consultation to avoid recall bias and to determine compliance. The home-visit was made by a trained interviewer (Moroccan, Surinamese, Turkish or Dutch), who spoke the language preferred by the parent.

During the home-visit parents were asked about their reason for visiting the GP and their understanding of the health problem. Further questions were about the examination and diagnosis of the GP, prescribed therapy and compliance. In case of non-compliance the reason was asked.

Assessment of parent characteristics and beliefs

The classification of persons into ethnic groups was based on their country of birth and the country of birth of their parents. If one of these three countries of birth was a non-western country (non-OESO), the parent was classified as belonging to the ethnic-minority group. The educational level of the parent was determined as the highest completed education, either in the Netherlands or in the country of origin and put into three categories: primary school (finished or partly), lower/moderate professional and higher education.

Patient beliefs about health (care) and disease were investigated by using existing validated questionnaires, modified by Leeflang [7]. The following beliefs were measured:

- The knowledge of and attitude towards health, disease and health care: with a questionnaire about health beliefs (11 items from a scale by Mootz [8]) asking whether a patient has culturally shaped normative ideas about causes of disease and whether nature can solve health problems. Parents were classified in three groups: few, moderate and many normative ideas. With five other questions parents were asked what they thought about the possibilities of modern health care [8] (e.g. ‘do you

believe physicians today can heal most diseases?'). Parents were classified in three groups: little, moderate, and much faith in possibilities of modern health care.

- The locus of control in general was measured by six questions (out of seven), originally from Pearlin [9]. This can be seen as an indicator of feelings of control or powerlessness. The locus of control in case of disease measures whether one feels that the doctor, fate or the patient himself is responsible for health. This locus of control was measured with 11 questions from the 18-item scale by Halfens [10]. For each dimension (doctor, fate or patient) a score was computed classifying the parents on each dimension in three categories varying from low to high responsibility.
- Relation with general practitioner: two questionnaires were used to measure the patient's satisfaction in the relationship with the general practitioner. One was about problems in the relationship and consists of nine questions [7], the other was about the communicative behaviour of the general practitioner (ten questions, originally by Mootz [8]). For both indicators, parents were classified in three groups based on their score.

Communication features

The communication between general practitioner and (parent of) the patient during the consultation was videotaped. These tapes were analysed using the Roter Interaction Analysis System (RIAS) [11] by several research assistants. With the RIAS, all statements by general practitioner and patient are scored in one of the many classes within two main categories: affective statements and instrumental statements. The affective communicative behaviour serves the doctor-patient-relationship and the instrumental behaviour is meant to solve the health problem. Apart from the verbal behaviour, five global affect-scales were rated for doctor and patient separately.

Assessment of outcomes: mutual understanding and therapy compliance

The effectiveness of the communication in terms of mutual understanding was measured by comparing the answers of doctor and patient to five components in the consultation: main complaint, cause of the illness, diagnosis, examination and prescribed therapy. Mutual understanding was present if doctor and patient gave comparable answers as judged by three researchers independently. In 70% of the cases there was independent agreement. All remaining cases (30%) were discussed until consensus was reached. This procedure resulted in an overall score for the mutual understanding as poor, doubtful or good. Compliance with the prescribed therapy was measured in a corresponding manner. The general practitioner registered the therapy in seven components: bed rest, staying inside, diet instructions, returning to the GP, referral to other health care, medication and special care instructions. During the home-visit the parent was asked about the prescribed therapy and whether this therapy was followed (and if not, the reason why). By comparing the parents' answers with the doctors' registration form, compliance was scored by the three researchers in as good, doubtful and poor. In 71% of the cases agreement was reached independently and 29% required discussion until consensus was reached.

Statistical analysis

The analysis was carried out in four steps. First, the relation between the ethnic background of the parents and the outcome (mutual understanding and therapy compliance) was tested with a chi square

test. Second, differences in patient characteristics, patient beliefs and communication between native-born and ethnic-minority parents were tested using chi square tests. Three, to assess whether the relation between the ethnic background of the parent and mutual understanding is partly associated with patient education and beliefs and communication, bivariate analyses were performed first. Then a multivariate logistic regression analysis was performed with mutual understanding as dependent variable. In the multivariate analysis indicators of beliefs and communication were included only if the bivariate odds ratio was statistically significant. Four, to assess whether the relation between mutual understanding and therapy compliance is associated with patient education and beliefs, and communication, a multivariate logistic regression analysis was performed with therapy compliance as dependent variable, mutual understanding as independent variable and patient education and beliefs, and communication features that were statistically significant related to mutual understanding as covariates. All variables with a bivariate relation $p<0.20$ were analysed simultaneously.

Results

The overall response rate was 61%; in the ethnic-minority group the response rate was 64% and in the native-born group 59%. Eventually the study population consisted of 87 parents with a videotape of the consultation and a completed home-visit; 48 parents (55%) belonged to an ethnic-minority population. These parents were born in many different countries: Morocco, Turkey, Surinam, Pakistan, Cape Verde, Bosnia etc. The other parents (n=39) were born in the Netherlands as well as both their parents (= native-born group). The educational level in the ethnic-minority group was lower than in the native-born group (p=0.001, Table 1).

In 24% of all consultations there was no mutual understanding between doctor and patient, more often with ethnic minorities (33%) than in native- born parents (13%) (p=0.07).
Compliance with prescribed therapy was judged as good in 77% of the consultations, as doubtful in 10% and as poor in 13% of the consultations. Although non-compliance in the ethnic-minority group (17%) was twice as high as in the native-born group (8%), this was not statistically significant (p=0.19). There is a strong relation between the degree of mutual understanding and compliance, which was poor in 6% of the consultations with mutual understanding and in 32% of the consultations without mutual understanding (p=0.02).

Patient beliefs and communication in native-born and ethnic-minority parents
Ethnic-minority patients have more affiliation with natural care in their health beliefs and have a more rigid set of normative ideas about the causes and prevention of disease (p=0.00). Native-born and ethnic-minority patients do not differ in their ideas about the possibilities of modern health care (p=0.10). Ethnic-minority patients have more often feelings of powerlessness, measured on the locus of control scale, than native-born patients do (p=0.00). There were no differences on the three dimensions (doctor, fate and self) of health locus of control between ethnic-minority and native-born patients (p=0.24, 0.18 and 0.22 respectively).
Ethnic-minority patients more often than native-born patients experience problems in the relationship with their GP (p=0.02) and they are less satisfied with the communicative behaviour of the GP than native-born patients (p=0.00).

The RIAS-analysis of the doctor-patient communication shows differences in communication between ethnic-minority and native-born patients. In consultations with ethnic-minority patients there is less social talk by doctor and patient (p=0.00). In consultations with native-born patients scores for doctor's concern (p=0.03) and doctor's friendliness (p=0.00) are higher than in consultations with ethnic-minority patients, while native-born patients show more warmth/friendliness in their contacts with the general practitioner (p=0.03).

Table 1 **Mutual understanding, compliance and educational level of native-born and ethnic-minority patients (in %)**

	Native-born n=40	Ethnic minority n=48	Total n=88	p-value
Mutual Understanding				0.07
Good	70	56	63	
Doubtful	18	10	14	
Poor	13	33	24	
Compliance				0.19
Good	83	73	77	
Doubtful	10	10	10	
Poor	8	17	13	
Educational level				0.00
(max) prim school	3	34	20	
Lower profess	68	40	53	
Higher education	30	26	28	

Relationship between patient-characteristics and beliefs and mutual understanding

More ethnic-minority patients than native-born patients had a consultation without mutual understanding (Odds Ratio (OR) =3.3, p=0.04).

There was no influence of different aspects of communication on the degree of mutual understanding during the consultation in both groups of patients.

Table 2 shows the results of the bivariate and multivariate analyses for patient characteristics and beliefs with mutual understanding. Bivariate analysis shows that when patients experience a lot of problems in their relationship with the GP it is more likely that a consultation results in ‘no mutual understanding’, and the same is true when patients are less satisfied with the communicative behaviour of their general practitioner. The other aspects of the patient beliefs have no significant influence on the degree of mutual understanding during the consultation.

Table 2 Relation between patient ethnic background and patient health beliefs with mutual understanding expressed in odds ratios (OR) with 95% confidence intervals (CI): model 1 – bivariate logistic regression and model 2 – multivariate logistic regression including statistically significant bivariate relations

	Model 1		***Model 2***	
	Odds ratio	95% CI	Odds ratio	95% CI
Ethnic background [ref: native born]	3.3	1.1-10.3	2.2	0.6-7.8
Educational level [ref: high]				
Low	6.2	0.6-61.9		
Middle	2.4	0.2-21.0		
Patient health beliefs				
Modern health beliefs [ref: high]				
Low	0.4	0.1-1.9		
Middle	0.6	0.2-1.9		
Possibilities modern health care [ref: high]				
Low	1.8	0.4-7.8		
Middle	1.1	0.3-3.7		
Locus of control [ref: high]				
Low	0.9	0.2-3.6		
Middle	0.8	0.2-2.7		
Problems with GP [ref: none]				
Some	1.0	0.3-3.5	0.7	0.2-2.8
Many	5.1	1.4-19.5	2.6	0.6-11.5
Satisfaction with communication GP [ref: high]				
Low	15.4	1.6-152.0	9.9	0.9-112.2
Middle	8.4	1.0-69.2	6.3	0.8-54.9

In a multivariate logistic regression the effect of ‘Problems in relation GP’, ‘Satisfaction with communicative behaviour of GP’ and ‘Ethnicity’ on mutual understanding is analysed simultaneously. The odds ratio for ethnic background drops from 3.3 to 2.2 in the multivariate analysis. Although none of the variables remains statistically significant, almost 48% (1.1/2.3) of the influence of ethnic background on mutual understanding is accounted for by problems in the relationship with the GP.

Relationship between patient-characteristics and compliance

None of the different aspects of patient’s background has a significant relation with compliance. As stated before, mutual understanding between patient and general practitioner shows a statistically significant relationship with compliance (OR=7.1, p=0.01).

Discussion

The main conclusions of this study are as follows:

- In 24% of all doctor-patient consultations in general practice there is no mutual understanding about the health problem, but this misunderstanding is not equally distributed between groups: 13% of the consultations in the native-born group and 33% of the consultations in the ethnic-minority group end without mutual understanding.
- Consultations without mutual understanding more often result in non-compliance.
- Ethnic-minority patients and native-born patients do differ in health beliefs and in locus of control, but this is not associated with differences in mutual understanding.
- Ethnic-minority parents experience the relationship and communication with their GP more negatively, which is associated with differences in mutual understanding.
- The communication between patient and general practitioner, as analysed with the RIAS, shows no relation with the degree of mutual understanding.

These findings may be explained by the fact that physicians and patients often hold differing views of health and illness and these discrepancies in beliefs and behaviours are often greatest when physician and patient have different cultural orientations [2]. Given the fact that most of the general practitioners are native-born, one can expect great differences in explanatory models used by physicians and ethnic-minority patients. According to the theory of Kleinman [6] the physician must explore the patient's explanatory model for the illness during the consultation and try to bridge the distance between patient's and doctor's conception of the health problem. The most important tool to do this is communication. An important factor contributing to communication problems may be that GP and patient have not clarified the reason for the consultation [12].

Although in this study physicians' communication with ethnic-minority patients proved to be different from that with native-born patients, no relation was found between aspects of communication and the result of the consultation in terms of agreement between doctor and patient. This could be due to the analysis system used. With the Roter Interaction Analysis System all statements are scored in an affective or instrumental category; the RIAS offers no possibility to analyse the content of what is said during the consultation and the reasons why utterances are made. Such an analysis may reveal more of the ways doctor and patient can misunderstand each other.

The fact that in 24% of all consultations the parent could not reproduce what the doctor had said about the health problem (cause, diagnosis and treatment) is remarkable. In this study consultations with children were chosen because children have a relatively narrow and simple pattern of complaints [13]. Based on these results with children one may expect a much higher percentage of consultations without mutual agreement with adults, who often have more complex, for instance psycho-social, problems. A similar study with adult patients is necessary. The results reveal that also in consultations with native-born patients mutual agreement about the health problem is not self-evident.

The relationship with the general practitioner, as experienced by the patient, seems to be important for the result of a consultation. Patients who experience a lot of problems in the relationship with the GP and patients who are not satisfied with the communicative behaviour are more likely to end the consultation without mutual agreement. Due to the cross-sectional design of this study it is not clear whether a bad relationship with the GP leads to mutual misunderstanding or vice versa. A longitudinal

study is necessary to determine the influence of doctor-patient relations on mutual understanding and compliance.
The importance of a good physician-patient relationship was also stressed by Safran et al [14]; they found that physicians' comprehensive knowledge of patients and patients' trust in their physician were the variables most strongly associated with adherence to the physicians' advice; patients' trust was strongly associated with patients' satisfaction with their physician [14].

We also found that consultations that ended without mutual agreement more often resulted in non-compliance with the prescribed therapy. A lot of factors are associated with non-compliance; 'the beliefs and expectations of parents about (chronic) disease and prescribed treatment' and 'poor communication patterns between physician and the parents' are just two of them [15]. Our results stress the importance of good communication-skills of the physician in exploring the explanatory model of the patient and keeping an open attitude to other models.
On the other hand, ethnic-minority patients must be taught to give not only factual information to their GP but also inform the GP about other relevant aspects of their cultural backgrounds [16]. This could be a task for health educators, from ethnic-minority groups, who are working in general practices to support the GP in his contacts with ethnic-minority patients [17].

Limitations of the study
This small study has some methodological problems. Due to the small numbers of patients in both groups some of the relations were not statistically significant, although they might have been in a study with larger numbers.
The overall response rate was 61%. It is possible that the size of the non-responding group has led to an underestimation of the findings, since one can expect that patients with a more traditional background are more likely to refuse participation, for instance women who are not allowed to make an appointment for the home visit without their husbands approval.
The population in our study was divided in two groups: the native-born and the ethnic-minority patients. While the native-born population is born in the Netherlands or in another Western-European country, the ethnic-minority population originated from many different countries. Besides, there were great differences in their length of stay in the Netherlands and in their proficiency in Dutch, as estimated by the general practitioner. Because of all these differences between the various ethnic-minority populations and because of the heterogeneity within a single ethnic group it is probably better to use a measure for integration or acculturation in subdividing the ethnic minorities. Such a measure should be developed.
Finally, all three researchers were native-born so the results are interpreted from a Western frame of reference.

The results of this study show that a good relationship between patient and GP is necessary for a consultation with mutual agreement about cause and therapy of the disease. Such a consultation is the best predictor for compliance. Ethnic-minority patients report more problems in their relationship with the GP, and consequently run a greater risk of an unsatisfactory consultation through misunderstanding.

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CHAPTER 3

WHEN CULTURES MEET IN GENERAL PRACTICE
Intercultural differences between GPs and parents of child patients

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Abstract

Although health care professionals in the Netherlands are increasingly confronted with diverse immigrant groups, medical counselling and treatment of these groups has not been the subject of extensive research yet. From other studies it is well known that intercultural differences can have serious consequences for health care, e.g. in terms of risk of incorrect diagnoses or non-compliance. Eighty-seven autochthonous Dutch and immigrant (mainly from Turkey and Surinam) parents of child patients and their general practitioners (GPs) were recruited to investigate the influence of cultural differences on mutual understanding and patient compliance. Analyses of questionnaires and home interviews revealed that there is a relation between the cultural background of the patient and effectiveness of communication. Communication in consultations between GPs and persons from ethnic minorities is less effective than in consultations with Dutch persons: there is more misunderstanding, and also more non-compliance. In general, mutual understanding between GP and patient proves to be a strong predictor for patient compliance. These findings hold especially true for patients living in two worlds, i.e. a mix of traditional and western cultures. The results are discussed in terms of methodological issues and practical implications for the health care providers.

1. Introduction

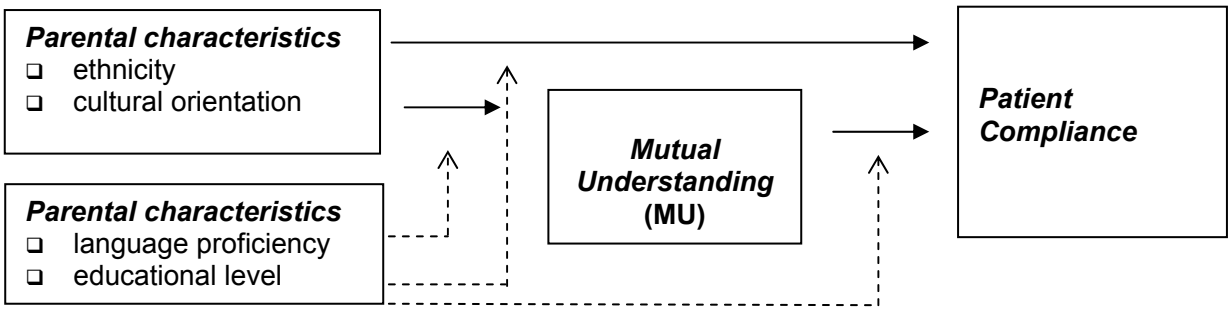
Due to worldwide migration, health care professionals are increasingly confronted with people from various ethnic backgrounds. In the Netherlands, about 15% of the population are immigrants, the largest group being from Moroccan and Turkish origin. Although there are indications to believe that counseling and treatment of non-Dutch patients is not as effective as in the case of autochthonous Dutch patients [1], this has not yet been the subject of serious research. Elsewhere, this intercultural phenomenon in health care has been studied in relation to consequences for medical care [2-4] and describes, for example, inappropriate use of health services (particularly out-of-hours use), the risk of incorrect diagnoses, and non-compliance with the advised treatment [5]. Effective communication between physician and patient is crucial to obtain optimal quality of care [6, 7]. In the case of consultations involving children, who are dependent on both parents and general practitioner (GP) for good medical care, both parties have a responsibility to achieve effective communication. Reasons for not effective communication are numerous: however, for interethnic communication the main reasons include cultural differences, linguistic (in)competence, and educational level [2, 3, 8-11].

Cultural differences (as explanations for the failing health care of certain groups of immigrants) stress the discontinuity between group-oriented norms and values, social coherence in immigrant home cultures, and the emphasis on individualism and autonomy in the dominant culture of the health care [12]. At the same time, cultural values and practices are not regarded as static and unchangeable. On the contrary, they are regarded as dynamic processes which are reinvented in the course of the migration history and in interaction with the recipient country [13]. In this process, the caregivers as well as the caretakers accommodate, and new forms of interaction will be invented. This so-called acculturation process refers to the reciprocal interaction between one or more minority cultures and the dominant culture, and requires mutual adjustments in intercultural contacts [14]. However, the relation between acculturation and health processes is rather complex [15]. To get elucidate these processes of acculturation in the context of patient-GP relations, the concept of clinical reality is relevant.

One of the prerequisites for effective intercultural communication is that patient and physician agree on the health problem of the patient and understand, acknowledge and respect each other's explanatory models for the health problem [8]. Kleinman et al. [16] illustrated the influence of culture on a person's perspective of health and illness and called it 'clinical reality'. Personal experience, family attitudes and group beliefs shape patients' health beliefs; physicians' beliefs are formed by the biomedical model, learned in medical training. The authors showed how 'clinical reality' influences mutual understanding between GP and patient [16]. The fact that physicians and patients hold discrepant models of health and illness and the fact that this may influence the manner in which health problems are presented, affect the outcome of a clinical visit; for example, patient non-compliance with advised therapy [17].The only way to become acquainted with each other's 'clinical reality' is by exchanging explanatory models. So cultural differences, expressed in the patient's and physician's beliefs about health and illness, should be considered in patient-doctor communication [16, 18-20].

The aim of the present study is to investigate: The relative influence of the parental ethnic background, the GP's perception of parental cultural orientation, the (parental) educational level and the parental proficiency in the Dutch language on: Mutual understanding between physician and parent regarding the health problem and patient compliance.
The investigated relations are schematically given in figure 1.

Figure 1
Investigated relations in the study



Method

Procedure and sample characteristics

This study was carried out in seven general practices with a mixed ethnic population in Rotterdam (a large Dutch city and port) and focused exclusively on parents with child patients. We restricted our study population to parents with children because of research technical reasons, in order to avoid possible confounding of serious and complex psychosocial morbidity, which is considered to be more prevalent among adults from cultural minorities.

To answer our research questions all parents with children (aged 0 to 12 years) that visited the GP for a new or recurrent health problem (excluding follow-up consultations) were approached on 23 a-selected days in March 1998. A research assistant invited parents in the waiting room of the practice to participate. The parents had to agree to an interview at home 3-5 days after the consultation, and inspection of their medical record in the general practice. The research assistant stressed that the GP would not be informed about the results of the interview. When parents agreed to participate they signed an informed consent form. An appointment for the interview at home was made: this interview was conducted in the parents preferred language (Turkish, Moroccan or Dutch) by an independent interviewer. All GPs were asked to complete a short questionnaire about consultation characteristics immediately after the consultation.

In this study 142 parents were approached: 82 parents from an ethnic minority and 60 parents of Dutch origin. Of these 87 parents agreed to participate: 48 (55%) from an ethnic minority (mainly Turkish and Surinamese), and 39 (45%) parents of Dutch origin. The 87 parents were from different families (i.e. not mother and father of the same child).

Measures

Parental characteristics

Ethnic background: The parents were divided to their ethnic background in accordance with their (or their parent's) country of birth [21].

GP's perception of parental cultural orientation: The GP was asked to divide the perceived cultural background of the parents (of non-Dutch origin) in one of three groups: 1) living in accordance with the traditional native culture, 2) parents living partly according to traditional/partly according to western culture, and 3) living according to Western culture. All the GPs had more than 7 years practical experience in their present medical setting; thus were expected to have a good view on the parental cultural background in general.

Proficiency in the Dutch language: The proficiency in Dutch of the parent was classified by the GP in the questionnaire using three categories of perceived proficiency: good, moderate and poor.

Education: The educational level of the parent was determined in the home interview by asking for the highest education completed either in the Netherlands or, if applicable, in their country of birth. All educational levels were grouped into three categories:1) primary school (either finished or not), 2) lower or intermediate (professional) education, and 3) higher education.

Consultation characteristics

The GP's questionnaire consisted of 14 (mostly open-ended) questions about the consultation: what was the kind of the presented health complaint to the GP; what the GP's diagnosis was, what was the parent's and the GP's opinion about the cause of the child's symptoms; had the GP examined the child

during the consultation; and the judgment about the consultation and perception of the parental satisfaction and idea about diagnosis and treatment. Closed questions were asked about the (advised) therapy: was the child referred; did the child have to stay in bed or rest; did the child have to stay inside; could the child eat everything; was the child prescribed any medication; was the child asked to come back; and was any other advice given.

GP's diagnosis: Diagnosis of the GP was coded by the investigators after the consultation according to the International Classification of Primary Care (ICPC) [22]. The ICPC consists of two axes, we only used the one in which diseases are divided into 17 main classes (indicated with a capital letter), mainly determined by medical tract.

Length of time of the consultation: The duration of the consultation was assessed in minutes and seconds.

Parental home interview: The parents' interview consisted of 11 (mostly) open-ended questions about the consultation: why they had consulted the GP; what the GP's diagnosis was, what was their and the GP's opinion about the cause of the child's symptoms; had the GP examined the child during the consultation; and their judgment about the examination. Closed questions were asked about the (advised) therapy: was the child referred; did the child have to stay in bed or rest; did the child have to stay inside; could the child eat everything; was the child prescribed any medication; was the child asked to come back; and was any other advice given.

Outcome measures

Mutual understanding: Mutual understanding (between GP and parent) was determined by comparing the accounts of GPs and parents with regard to five components: symptoms presented (health complaints), diagnosis made, examination performed, cause of illness stated, therapy performed or advised. Mutual understanding was present if parent and GP gave comparable answers as judged blindly by three experts independently; all these experts (researchers) were of Dutch origin. This procedure resulted in an overall score of the mutual understanding of the communication during the consultation: good, doubtful or poor mutual understanding. The interrater reliability between the three experts for mutual understanding was measured in the number (percentage) of consultations they agreed independently beforehand, being 70%. In 30% of the consultations a meeting was necessary to reach consensus.

Patient compliance: Patient compliance to proposed therapy by the GP was determined by asking the parents their compliance to advised therapy. Compliance was scored in three groups: 1) good, 2) doubtful or 3) poor compliance. The interrater reliability for compliance between the three experts was 71% beforehand. In 29% of the consultations a meeting was needed to reach consensus.

Statistical analyses

To assess the influence of the parent's ethnic background and GP's perception of the parental cultural background on mutual understanding and patient compliance, bivariate and multivariate (including proficiency in Dutch and educational level) logistic regression models were carried out. These analyses were restricted to the 'good' and 'poor' categories for mutual understanding and patient compliance (excluding consultations with doubtful mutual understanding and doubtful patient compliance will result in a smaller number of cases which will be indicated below tables). The results are presented as odds ratios with 95% confidence intervals (CI).

Results

Parent and consultation characteristics

The parent and consultation characteristics are given in Table 1. The ethnic background of the immigrant group was quite diverse, with the majority being of Turkish and Surinamese origin.

According to the GP's perception of the parental cultural orientation, the ethnic minority group was divided in three groups: a traditional group, a western oriented group, and a mixed group being partly traditional / partly western oriented. The latter group forms the majority (65%).

The educational level of the parents was lower in the ethnic minority group: 15 cultural minority parents (34%) compared to one Dutch parent had maximally primary school level.

Concerning the proficiency in Dutch, there was more poor and moderate proficiency in Dutch in the 'partly traditional' group (22.5%) and even less proficiency in the 'traditional' cultural group (75%), compared with the 'western' group (12.5%).

Table 1 Parent and consultation characteristics

		Ethnicity, N	
Patient characteristics (N)		Ethnic minority	Dutch
Ethnicity (87)	Dutch		39
	Turkish	13	
	Moroccan	2	
	Surinamese	11	
	Netherlands Antillean	2	
	Cape Verdean	4	
	Other	16	
Proficiency in Dutch (86)	Good	33	39
	Doubtful	10	
	Poor	4	
Education (83)	Primary School	15	1
	Lower/intermediate	24	30
	Higher	5	8
GP's perception of parental cultural orientation (87)	Traditional	9	
	Partly traditional/western	31	
	Western	8	
	Dutch		39
Consultation characteristics			
Diagnosis GP N=84	General	9	5
	Digestive tract	3	1
	Eye	2	3
	Ear	5	4
	Musculosceletal tract	2	5
	Respiratory tract	14	11
	Skin	7	8
	Endocrine tract	2	
	Urogenital tract	2	1
Mean cons.time N=78		8 min 6 sec	8 min 42 sec
	SD	3 min 19 sec	4 min 12 sec

The most common groups of GP's diagnoses for the children were respiratory problems (25%), skin problems (18%), ear problems (16%), general health problems like fever and general weakness (14%), eye problems (8%), digestive problems (7%) and categorization problems (7%). Remarkable differences between the ethnic minority group and Dutch parents were the large number of general health problems in the ethnic minority group (21% versus 8%) and, in contrast, the large number of musculoskeletal problems in the Dutch group (13% versus 2%).

- *Outcome measures*

Mutual understanding is higher in consultations with Dutch parents than with the total group of ethnic minority parents (72% versus 56%, respectively).

In 23% of all consultations, patients and GP misunderstood each other. In the immigrant group, mutual misunderstanding was more than three times higher than in the Dutch group (33% versus 10%). It appeared that the (GP perceived) 'partly traditional/partly western' group had the highest percentage of consultations with poor mutual understanding (39%).

In consultations with poor or doubtful mutual understanding, the presented health problems differed according to the ethnic background of the parents. Although the numbers are small, respiratory and ear problems were more often associated with poor and doubtful communication in consultations involving ethnic minority children: 10 of the 14 respiratory/ear consultations with ethnic minorities versus 1 of the 11 consultations involving Dutch children (Box 1).

Box 1 Examples of poor mutual understanding

- Ethnic minority mother indicates that her child had a flu and she kept her child in bed for one day on the GP's advice. The GP had given no diagnosis and had only prescribed an analgesic for headache.
- Dutch mother visits her GP for her child with flu and chronic knee complaints. At the home visit she only mentioned the knee complaints and she understood that the GP had sent her to an orthopedist and didn't expect to see her again. The GP indicates that the child was referred for X-rays and the mother had to return to discuss further strategy.
- Ethnic minority mother did not understand the diagnosis of Irritable Bowel Syndrome as an explanation of her child's bellyache. The mother mentioned 'fat food' as the reason for the child's large body size.
- Ethnic minority mother didn't understood the diagnosis or the therapy concerning the hearing complaints of her child. GP diagnosed excessive cerumen in the auditory canal and syringed the ear. The mother didn't mention anything about this afterwards.
- Ethnic minority mother mentioned asthma as the diagnosis of the GP. The GP had only mentioned viral pharyngitis. According to the mother the GP ordered the child to stay in bed and come back next week. The GP declares that no limitations were given for the child and that the child should return only the complaint persist. The mother hints indirectly that she expects medication more frequently from the GP.
- Ethnic minority mother (living in the Netherlands for 5 years) is not satisfied with her GP. She always has to ask for investigations and now believes that her child has diabetes and wants to be referred to hospital. She wanted to change the GP in an earlier stage, but her husband refused.

Regarding the influence of the educational level and proficiency in Dutch on mutual understanding, in the ethnic minority group the percentage of consultations with good mutual understanding drops from 60% to 53% when the educational level of the parent decreases (p=0.04). The percentage of good mutual understanding drops rapidly with decreasing proficiency in Dutch (61%, 50% and 25% for good, moderate and poor proficiency, respectively; p=0.02).

Table 2 shows the relation between ethnic (and cultural) groups and mutual understanding, adjusted for the parental features proficiency in Dutch and education.
Without correction for parental features, there is a strong correlation between ethnic minority parents (odds ratio 4.2), especially the 'partly traditional' parents (odds ratio 5.6) and mutual misunderstanding. Correction for the investigated possible confounders (education and proficiency in Dutch) has substantial influence. Parental proficiency in Dutch shows the strongest correlation with mutual misunderstanding. The influence of the 'partly traditional' group is still important but weakens due to the correction for parental proficiency in Dutch. Because of the small numbers we did not adjust for health complaints in the logistic model.

Patient compliance

Regarding the relation between the GP's perception of the parental cultural orientation and patient compliance, the ethnic minority group had twice as much poor compliance than the Dutch group (17% versus 8%). Especially the 'partly traditional/partly western' parents were most often reported as having poor compliance (26%).
Traditional parents reported 100% good compliance (n = 9).

Table 2 Strength of relationship between ethnicity (or cultural orientation) and mutual misunderstanding adjusted for parental characteristics (logistic regression)

	mutual misunderstanding			
	unadjusted		adjusted	
	Odds ratio	95% CI	Odds ratio	95% CI
Ethnic minority parents*	4.2	1.23 – 14.00†	2.5	0.62 - 9.99
Parental characteristics				
Poor proficiency in Dutch			1.8	0.60 - 5.58
Educational level: primary school**			4.9	0.44 – 54.66
Lower or intermediate professional**			2.5	0.26 – 23.87
Cultural groups				
Traditional*	2.0	0.30 – 13.22	0.1	0.00 - 5.43
Partly traditional/partly western*	5.6	1.54 – 20.42†	3.5	0.77 – 16.62
Western*	2.8	0.40 – 19.60	2.1	0.27 – 16.18
Parental characteristics				
Poor Proficiency in Dutch			5.5	0.93 – 32.59
Educational level: primary school**			1.6	0.11 – 23.63
Lower or intermediate professional**			1.6	0.16 – 14.96

Analyses on 70 consultations (one child/consultation) excluded are consultations with doubtful mutual understanding and missing data (on mutual misunderstanding).

*Compared with Dutch parents

** Compared with higher education

† Statistical significant (p<0.05)

Table 3 shows the relation between mutual understanding and patient compliance, bivariate and adjusted for the parental features cultural orientation, proficiency in Dutch and education.

It appears that mutual understanding has a strong influence on patient compliance (odds ratio 7.7) and remains substantial after adjustments (odds ratio 8.0). More importantly, the results show that independent from mutual understanding, parents who live partly according to both cultures are more often non-compliant (odds ratio 13.3) than Dutch parents.
The parental proficiency in the Dutch language has no substantial influence on the relation between the GP's perceived parental cultural orientation and patient compliance.

Table 3 Strength of relationship between mutual misunderstanding and patient non compliance adjusted for ethnicity (or cultural group) and parental characteristics

	non- compliance exclusively		non- compliance adjusted	
	Odds ratio	95% CI	Odds ratio	95% CI
Mutual misunderstanding	7.7	1.67 – 35.19†	8.0	1.44 - 44.02†
Ethnic minority parents*			7.3	0.70 - 75.52
Parental characteristics				
Poor Proficiency in Dutch			0.5	0.11 - 2.08
Educational level: primary school**			1.1	0.07 - 19.91
Lower or moderate professional**			0.7	0.04 - 11.26
Mutual misunderstanding			6.2	0.90 – 42.46
Cultural groups				
Traditional*			‡	
Partly traditional / partly western*			13.3	1.16 – 151.52†
Western*			‡	
Parental characteristics				
Poor Proficiency in Dutch			0.8	0.12 - 5.17
Educational level: primary school**			0.3	0.01 – 14.15
Lower or moderate professional**			0.4	0.01 – 15.10

Analyses on 62 consultations (one child/consultations), excluded are consultations with doubtful mutual understanding, doubtful compliance and missing data on mutual understanding and compliance.

*Compared with Dutch parents

** Compared with higher education

‡ Excluded: no estimate because of empty cell.

† Statistical significant ($p<0.05$)

Discussion

The main conclusion from this study is that communication in consultations between GPs and persons from ethnic minorities is less effective than in consultations with Dutch persons. There is more misunderstanding in consultations with members of ethnic minority groups, especially the partly traditional/partly western oriented group. Mutual understanding between GP and patient proves to be a strong predictor for patient compliance. There is more noncompliance in the ethnic minority group. Thus, the need for effective communication is obvious to obtain good medical care. These results are, in accordance with other findings [4, 5].

To get an impression of the influence of cultural difference between physician and patient we divided the ethnic minority parents into cultural subgroups, according to the GP's perceived degree of cultural orientation of the parents. It appeared that in consultations with parents that lived 'partly according to traditional / partly to western culture' there was less mutual understanding. Moreover, parents that live according to both cultures were very often noncompliant, independent from mutual understanding with their GP. Although in our study this group was relatively large, the group of the second generation immigrants is probably the largest group and the most likely to live between the two cultures. Living between two cultures may lead to ambiguity by the patient and in misjudgment of the parental cultural background by the GP. This may be further confused when parents unexpectedly change in 'cultural attitude'(e.g. from western to traditional). In existential problems, such as health problems, this sudden change in 'cultural attitude' can occur. The 'group of parents living according to their traditional culture' and 'the group living according to the western culture' differed less, both in mutual understanding and compliance, from the Dutch parents; however both these groups were rather small. The parental proficiency in Dutch had a substantial influence on mutual understanding, but not on patient compliance. Considering that after adjustment for parental characteristics the relation between ethnic or cultural background and mutual understanding largely disappeared, but the influence of the parental educational level was minimal.

In conclusion, the presumed relationship between the cultural orientation of the patient and effectiveness of communication was empirically assessed in this study. Beside language differences and, to a lesser extent knowledge deficits (due to differences in educational level), cultural differences play an important role in mutual understanding and patient compliance.

Limitations of the study

Before discussing these results in terms of practical implications, some methodological issues needs addressing. First, this investigation was based on a limited number of participants (both patients and GPs). This study is, however, unique in the Netherlands; researchers have difficulty in recruiting persons from minority groups for this type of research. The non-responders may have limited the validity, since we suspect that those in the cultural minority group with a more traditional background refused more often (e.g. mothers were not allowed to agree without their husband's approval). Because of the small number it is not possible to widely generalize these results. We recommend to replicate the investigation with a larger number of GPs and patients. Related to this is the measure we used to assess the cultural orientation of the ethnic minority groups. We used the GP's perceived degree of cultural orientation of the parents for two reasons. First, we believed that the physician with long

familiarity with different cultures in a multicultural neighbourhood and knowledge of the patient could soundly value patient's cultural background. Secondly, we assumed that the physician would implicitly consider patient's cultural background in the communication. At the start of this project, there were no other measures available to assess the degree of acculturation, which were validated for the different immigrant groups in the Netherlands (see the review of Phalet & Verkuyten [23]). In future studies, it is recommended to use a validated questionnaire, which can be filled out by the patients, independent from the health care provider. Because of the explorative character of this study it is recommended to assess the hypothesis in a larger sample.

Practice implications

There was a large number of consultations with a less than optimal mutual understanding. About 50% of the parents were unable to name the diagnosis given by the GP. Moreover not only is the communication in consultations with those from other cultural backgrounds insufficient, but also in about 25% of the consultations with people from similar backgrounds and with a good command of the language. The limited communication is not restricted to a particular part of the consultation, but can occur from the beginning of a consultation: e.g. symptoms are not mutually understood in about 30% of the consultations. Bearing in mind that these results are based on consultations for children's illnesses that are often relatively uncomplicated, extrapolation to consultations with adults or elderly people with often more complex problems may reveal even less acceptable data.

These results also indicate (given the contribution of language proficiency) the need for an interpreter in consultations with patients who do not speak the local language. Often other relatives (e.g. other children) are present for translation purposes; however Phelan and Parkman [24] have described the disadvantages of using relatives, particularly children. Nevertheless, for less serious health problems it is by far the most efficient solution, because interpreters (even by phone) are scarcely available, especially for unscheduled but important consultations and during out-of-hours. It is reported that an interpreter can improve the quality of consultations and is valued by the patients [25].

It is obvious that, besides the educational and linguistic limitations, cultural differences lead to less mutual understanding and to less patient compliance. Explanations for the limited effectiveness due to cultural differences may be found in the different explanatory models of the patient and physician. Especially if the explanatory models of the patient are not concordant with those of biomedicine, mutual understanding will be challenged. Kleinman has indicated the need for mutual understanding between GP and patient [16, 18]. Our study showed that the parents that lived according to their traditional culture had a better mutual understanding with their GP and compliance to therapy than parents that lived 'partly to their traditional culture / partly to Western culture'. For compliance this may be caused by patient's custom to give social desirable answers, but this does not hold true for the more objectively assessed mutual understanding. A sudden change in parental 'cultural attitude'(e.g. from western into traditional or vice versa) and misjudgment by the GP of the 'actual parental cultural attitude' may also explain this. This may be due to the patient's confusion because of living in two cultures, or the GP's difficulty in perceiving the right cultural level of the patient to avoid mutual misunderstanding; or an interaction of both. No matter what is most decisive, GP's knowledge about patient's level of

acculturation and a good exchange of explanatory models are important; but even then effective patient care is not guaranteed [26].

Effective communication skills that surpass language capabilities are necessary. Recently, in several cities in the Netherlands migrant health educators employed as mediators have been assigned to general practices to support the GP's consultations with people from ethnic minorities. Besides their presence during consultation, these mediators have separate office hours which patients can attend for problem clarification before a GP consultation, or for explanation of diagnosis and therapy after the GP consultation. Experiences of GPs, patients and link workers have been positive [27].

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CHAPTER 4

GP CONSULTATIONS WITH ETHNIC MINORITY CHILDREN

Communication between parents and the general practitioner

Huisarts en Wetenschap 1999; 42 (5): 211-5

Abstract

Aims

To investigate whether communication in general practice differs between native patients and patients from other ethnic origins, and to assess whether these differences influence the length of the consultation and the prescription of medication.

Design

Exploratory and descriptive study in seven general practices in Rotterdam-Charlois. During 66 consultations with children (34 ethnic minority origin and 32 Dutch origin) recorded on videotape, the communication (between physician and children's parents) and the duration of consultation were scored according to the Roter Interactional Analysis System. The prescription of drugs was determined after the consultations.

Results

Analyses showed that the general practitioner made more empathetic statements and had more often conversations about lifestyle with ethnic minority patients. He (or she) asked Dutch patients more questions about 'something else'. The communication aspects had no influence on the duration of the consultation. Compared with Dutch patients, consultations with ethnic minority patients lasted longer (13 versus 10 minutes), and medication was more often prescribed to ethnic minority patients (50% versus 71%). This difference in prescription was partly caused by differences in presented morbidity; it increased after correction for the number of empathetic statements made by the general practitioner, but no significant relations were found ($p=0.06$).

Conclusion

There are very few differences in communication during consultations between ethnic minority parents and Dutch parents and their general practitioner. There may be some correlation between these differences and the difference in prescription rate between these two groups.

Introduction

During the past decades the number of inhabitants with an ethnic minority background has increased in the Netherlands, especially in large cities [1]. This has had implications for primary healthcare. The number of ethnic minority patients in a general practice is cited as one of the causes of the increased workload of the general practitioner (GP) [2, 3]. Hereby difficulties in communication probably play an important role, including lack of proficiency in the Dutch language, lack of knowledge about health and disease, different perceptions about illness and health, and different views about the GP's tasks and role.

Earlier studies showed that consultations with ethnic minority patients generally lasted longer than consultations with Dutch patients, and that GPs prescribed more often medication [4-6]. The communication style may also influence the outcome of a consultation [7, 8]. Whether the relation between ethnic background of the patient and prescription of medication is influenced by differences in communication between the GP and the patient, has not yet been investigated.

The aim of this study is to investigate

- To what extent differences exist in physician-patient communication in consultations with ethnic minority and with Dutch patients.
- Whether the patient's educational level and proficiency in the Dutch language influence this relation.
- Whether differences in consultation duration and prescription of medication between different ethnic minority patients are explained by differences in communication.

Methods

This study was conducted in seven general practices (six solo practices and one duo practice, with also a trainee; total of 9 GPs) in the neighbourhood of Charlois in Rotterdam. In these practices about 30% of the patients is from an ethnic minority background. We limited the study to consultations with children aged 0-12 years in order to get more homogeneity in the reason for the visit, and because mental complaints and disorders are less frequent in childhood.

Data were collected in Spring 1996. All children's parents visiting the GP for a child health complaint were asked to participate. After signing an 'informed consent' form parents were briefly interviewed and than the consultation was videotaped. To get a sufficient number of patients (optimal 20 consultations for each GP) the intake took 2-5 days in each general practice.

To assess the ethnic background of a child (Dutch or ethnic minority) we used the BIZA criteria: i.e. when a child or at least one of his/her parents was born abroad he/she was considered belonging to an ethnic minority [9]. The Dutch group consisted of children who were born in the Netherlands, as were both their parents. For the educational level we used the highest completed education (in the country of origin, or in the Netherlands) of the mother. An observer scored language proficiency subjectively on a five-point scale based on the videotaped consultation.

Medical care aspects were determined by two indicators: duration of the consultation in minutes (assessed from the video recording) and whether or not medication was prescribed.

Communication was assessed with the RIAS method by four observers [10]. In accordance with this method all verbal statements of physician and patient are split (into the smallest possible units) and categorised according to the kind of statement. This method has proved to be a reliable instrument for the evaluation of communication between physician and patient [11, 12]. RIAS distinguishes between two main categories: affective and instrumental statements. The purpose of the instrumental statements is to solve the problem, the purpose of the affective statements is to set up and maintain a good physician-patient relationship [10, 13].

The inter-observer reliability of the RIAS score was determined by comparing the scores of ten consultations (scored by all four observers) with a Pearson's correlation coefficient.

To make the statements manageable for further analysis, principal component analyses were performed with the affective and instrumental statements of GPs and patients separately. This technique of data reduction aims to reduce the large number of variables into a small number of factors that can be interpreted. Reduction into three factors (with eigenvalue >1) appeared to give good interpretable factors, except for the instrumental statements of the physician which needed four factors. The factors were classified by the researchers on the basis of statements that weighed heavily on the factors.

Each consultation was scored on each of these factors. A negative score means that this category of statements (characterised by the corresponding factor) appeared less often in consultations.

Additionally RIAS contains a judgement of the so-called affect ratings of physician and patient. The observers scored the consultation for five affect ratings on a six-point scale: anger and irritation; anxiety and nervousness; dominance and assertiveness; concern or worry and interest; warmth and friendliness. In accordance with the RIAS methodology a subjective judgement was made of the occurrence of each affect rating for physician and parent separately (1: not occurring; 6: occurs a lot).

To assess communication differences between Dutch and ethnic minority patients with their GP the scores on factors and affect ratings were compared and tested with a t-test. The differences in consultation duration and prescription for the two groups were assessed and tested with a t-test and chi-square, respectively. The influence of the communication characteristics on the relation between ethnic background on the one hand and consultation duration and prescription of medication on the other hand was determined by linear and logistic regression, respectively.

Results

None of the 82 invited parents refused to cooperate in the study.

Only 66-videotaped consultations could be used for analysis (34 with ethnic minority and 32 with Dutch children); the technical quality of the others (including all recorded consultations with ethnic children of GP number five) was too poor to evaluate. The number of recorded consultations per GP varied from 1-13 (average7.3). The most frequent countries of origin of ethnic minority parents were Turkey, Morocco and Dutch Antilles (together 70%). Only four ethnic children were not born in the Netherlands. The average age of the ethnic minority children was 3.9 years (standard deviation 3.6), the Dutch children 4.2 years (standard deviation 4.3).

None of the Dutch parents showed a poor proficiency of the Dutch language; whereas 11 of the ethnic minority parents had poor proficiency. There was no significant difference in the parental level of education between the two groups.

Children from ethnic minorities presented more gastro-intestinal and respiratory tract problems but fewer ear and locomotory tract problems. The Pearson correlation coefficient for the interrater reliability of the various GP-related RIAS categories ranged from 0.69 to 0.79 and from 0.55 to 0.77 for patient-related RIAS categories.

Differences in communication

The affective factors of the GP are commitment, reassurance and compassion.

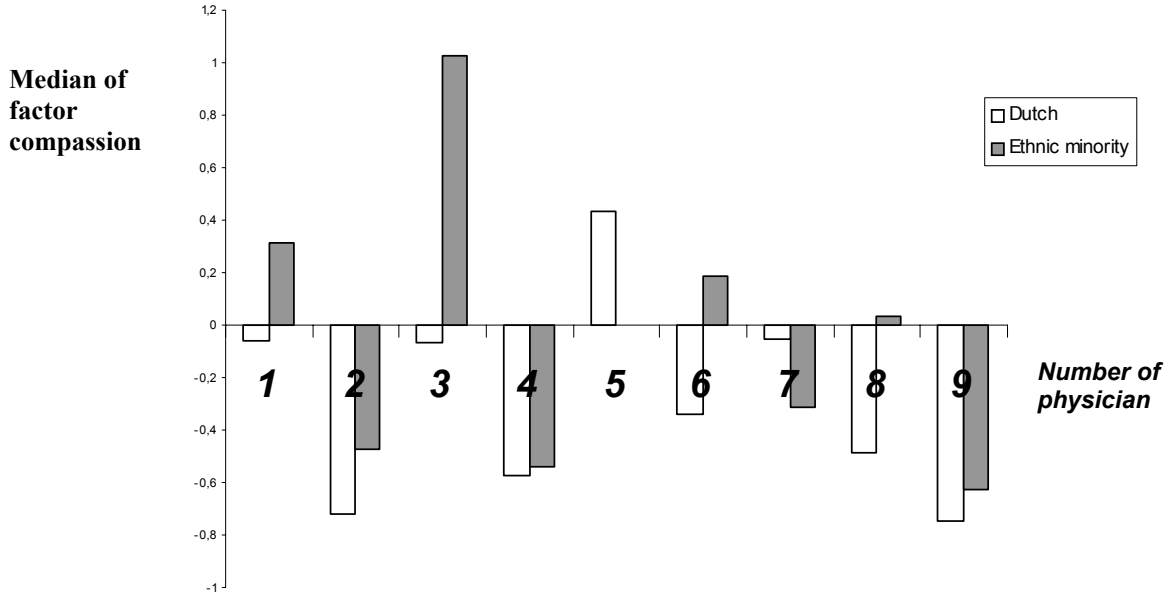
These three factors explained 62% of the total variance. The instrumental statements of the physician can be divided into four factors (which explained 46% of the total variance; Table 1): lifestyle, feelings, therapy and various.

For the parents three affective factors were found: confirmation, social talk and concern/ worry (which explained 58% of the total variance). The three instrumental factors of the parents were: therapy, feelings/various/lifestyle and closed questions (which explained 47% of the total variance).

The physician made more statements of compassion in consultations with ethnic minority children, and ethnic minority parents more often asked closed questions, but these differences were not significant ($p= 0.06$; Table 2). Because the number of statements of compassion may be physician-dependent, the median score for the GP factor compassion in the consultations has been calculated for Dutch and ethnic minority patients separately (see Figure1). Although, the absolute number of statements of compassion clearly differs per GP, there were more statements of compassion in consultations with ethnic minority parents by seven of the nine GPs.

Figure 1

Median score for GP factor compassion. For each GP in consultations with ethnic minority and with Dutch patients.



The affect ratings scored separately for both parent and GP showed little differences between consultations with ethnic minority and Dutch patients; however, the ethnic minority parents showed significantly more ($p < 0.05$) feelings of concern and interest (mean: 4.8 on the six-point scale) than did the Dutch parents (mean: 4.2).

Language proficiency and parental educational level

There was some difference in language proficiency but not in maternal educational level between the two groups.

Consultation duration and prescription of medication

Consultations with ethnic minority children (mean 10 minutes)lasted three minutes longer than consultations with Dutch children (mean 7 minutes) (t-test $p=0.027$). Consultations with ethnic minority children more often resulted in the prescription of medication than consultations with Dutch children (71% versus 50% respectively), but the difference was not significant (chi-square test $p=0.09$) Differences in communication did not influence either the consultation duration or the relation between ethnic background and consultation duration. There were fewer prescriptions of medication in consultations that had more statements of compassion by the GP (odds ratio 0.5), but this relation was not significant.

TABLE 1

Loadings (>0.30) of affective and instrumental statements, from the physician and from the parent. (results of a principal component analysis with varimax rotation and forced 3 or 4 factor analysis)

	Parent			Physician		
Affective statements						
	Confirmation	**Social talk**	**Concern/ Worry**	**Commitment**	**Reassurance**	**Compassion**
Asking reassurance	0.76				0.78	
Agrees / understands	0.69			0.62		
Approves	0.60				0.44	0.53
Paraphrases	0.47	0.44		0.87		
Personal remarks		0.87				
Jokes / laughs	0.33	0.58				
Legitimises			0.93			
Shows concern / worries	0.55		0.60	0.81		
Confirms					0.82	
Shows solidarity						0.79
Sympathises/ shows compassion						0.77
Explained variance	29,4%	16,1%	12,6%	24,8%	21,1%	15,8%
cumulative		**58,2%**			**61,7%**	

	Parent			Physician			
Instrumental utterances							
	Therapy	**Feelings Various & lifestyle**	**Closed questions**	**Lifestyle**	**Feelings**	**Various**	**Therapy**
Gives information about therapy	0.85				0.47		0.32
Closed question about therapy	0.74						0.49
Open question about therapy	0.65				0.37		0.68
Gives medical information	0.49			0.32			0.41
Open medical question	-0.33	0.71			-0.63		
Open question about something else		0.70	-0.35		-0.48		
Gives information about lifestyle		0.50					
Counselling on medical issues and therapy		-0.39			-0.34		0.68
Gives information about feelings		0.35				0.43	
Closed question about something else			0.66			0.67	
Closed question about lifestyle			0.58	0.89			
Closed medical question	0.44		0.51			-0.58	
Counselling on lifestyle				0.80			
Open question about lifestyle				0.66			
Closed question about feelings					0.63		
Open question about feelings					0.50		
Gives information about something else						0.73	
Explained variance	21,0%	14,3%	11,3%	14,0%	11,5%	11,0%	9,3%
cumulative		**46,6%**				**45,7%**	

Table2 Differences between consultations with ethnic and Dutch children. Differences in loading on factors found (in consultations) with ethnic children on the one hand and Dutch children on the other hand .

	Mean values ethnic minority	Mean values Dutch	Absolute difference	p-value
Parent affective				
Confirmation	-0.003	0.003	0.006	0.98
Social talk	-0.024	0.025	0.049	0.84
Concern/ Worry	-0.179	0.190	0.369	0.13
Physician affective				
Commitment	0.179	-0.191	0.370	0.13
Reassurance	0.039	-0.042	0.081	0.75
Compassion	0.224	-0.238	0.462	0.06
Parent instrumental				
Therapy	0.048	-0.051	0.099	0.69
Feelings, various, lifestyle	-0.083	0.088	0.171	0.49
Closed questions	0.222	0.236	0.458	0.06
Physician instrumental				
Lifestyle	0.176	-0.187	0.363	0.14
Feelings	0.025	0.027	0.052	0.83
Various	-0.158	0.168	0.326	0.19
Therapy	0.082	-0.087	0.169	0.50

Discussion

Although one cannot generalise the results of this study, they may indicate a trend between the different relationships studied.

Concerning communication there were very few differences in physician and patient relationships. The physician made more statements of compassion and asked ethnic minority patients more closed questions. The former is probably due to the extra effort to create a good physician-patient contact rather than a matter of special feelings; the latter can be explained by a different appreciation of and a different view on health and illness among ethnic minority patients compared with the Dutch patients [10, 14].

Maternal educational level and language proficiency did not offer an explanation for the differences that were found.

In retrospect, it is doubtful whether the method we used to assess ethnicity was the most valid choice. Ethnicity is probably too non-specific for this purpose; ethnic minority patients differ greatly in their background characteristics and the best measurement for differences in background is probably cultural background.

Communication during the consultation is probably influenced to a large extent by language proficiency and cultural background of the patient. Therefore Pinto's division into coarse-meshed and fine-meshed structures of culture is probably a better theoretical model to examine and explain the differences [15, 16].

The finding that consultations with ethnic minority patients lasted longer and more often led to the prescription of medication conforms with earlier studies [4-6]. However, Versluis-van Winkel, found no difference in the duration of the consultation [17], and the influence of physician–patient communication on the medical care provided is not always clear either [7, 8, 13, 18-20]. The relation between ethnicity of the patient and the prescription of medication by the GP leads to the following hypothesis: The more statements of compassion are made during consultations with ethnic minority patients, the less medication is prescribed. This hypothesis could be tested in future studies. Because there was no relation between the GP factor compassion and consultation duration, the longer duration of consultations with ethnic minority children is difficult to interpret.

The number of presented health complaints played no role because this was equal for both groups. The communication may be more difficult and time consuming and/or the physical examination may take longer in consultations with ethnic minority patients.

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CHAPTER 5

DO PATIENTS AND PHYSICIANS IN A MULTICULTURAL POPULATION UNDERSTAND EACH OTHER?

Submitted

Abstract

Introduction

Mutual understanding between physician and patient is regarded as essential for good quality of care; however, both parties have different views on health complaints and treatment. This study aimed to develop an objective measurement of mutual understanding between general practitioner (GP) and patient in a multi cultural setting.

Methods

The study* included 986 patients from 38 general practices. GPs completed a questionnaire and patients were interviewed after the consultation.

To assess mutual understanding we compared the answers to questions about different consultation aspects: S (presentation of health complaint), C (cause of the health complaint), O (medical inquiry, physical examination), A (diagnosis) and P (treatment). C-S-A were explored in open questions, O and P in yes/no questions. Using the nominal group technique an expert panel developed criteria: firstly to assess the level of mutual understanding specific for C-S-A and, secondly, weights to combine all aspects into an overall judgement of mutual understanding.

Construct and criterion validity were assessed by comparing the patient's score on mutual understanding with patient-related and GP-related criteria using multilevel regression techniques.

Results

Concerning criteria for each C-S-A-aspect: understanding upon presented health complaint (S) and knowledge of each other's opinion about cause (C) and diagnoses (A) were essential.

Construct validity was good for all criteria. Criterion validity was good for GP-related criteria, but not for all the patient-related criteria (such as patient's compliance, patient's satisfaction with the GP and patient's understanding on consultation aspects), but was good for criteria such as satisfaction with the consultation and feeling that the GP had been considerate.

Conclusion

It was possible to develop an objective measurement for mutual understanding between GP and patient. The validity of the instrument is good, although there are discrepancies between some patient-related criteria and mutual understanding. This instrument can be used in large-scale quantitative studies.

* Rotterdam Inter Cultural communication In Medical setting Study: RICIM Study.

Introduction

For a good quality of care, mutual understanding (MU) between patient and physician is necessary, but often disappointing [1-3]. For perceived good medical care, patients need to understand their physician and need to be understood [4]. Language proficiency and communication skills are necessary for good MU but they can also obscure more culturally-defined discrepancies between patient and physician. Kleinman has indicated that patient and physician often hold different views on disease and treatment [5]. According to Kleinman's theory it is important to know each other's views in order to potentially reach 'concordance in clinical reality'. The physician's point of reference is the biomedical model as learned in medical training, whereas the patient's views are based on socialisation and illness experiences [6]. Based on their practical experience and socialisation, physicians will generally know and understand most patient's views on illness if they have the same cultural background. However in consultations between a patient and physician with a different cultural background the discrepancy between their views on illness will be larger [6-8] as shown in an earlier study on consultations between GPs and ethnic minority patients [9].

Although MU between physician and patient is considered important, it is unclear how it can be objectively assessed; often, it is the perceived patient's estimate of MU [2]. Furthermore understanding, agreement and satisfaction are easily confused; mutual understanding does not implicate agreement and satisfaction is a general feeling that depends on perceived quality of professional skills, perceived quality of the doctor-patient relationship [10], perceived participation in decision making [11] and is also related to the quality of care [12, 13].

There is also confusion and variation in use of terms 'mutual understanding', 'concordance' and 'common grounds' [14, 15]. Moreover, understanding must not be confused with the perception or feeling to understand [15]. In our opinion MU is the knowledge of both physician and patient about each other's opinion or explanatory models [5]. MU is a prerequisite for concordance, which we consider to be agreement about a joint opinion between physician and patient. Concordance about explanatory models can bridge differences in (ethnic) background between physician and patient [16].

In this study we aimed to develop a generally applicable measure of MU for the medical setting to be used in large-scale quantitative studies. We called this instrument MUS (mutual understanding scale). We considered knowledge about each other's views towards the presented health complaint (in accordance with Kleinman's theory) to be the most important aspect of mutual understanding [2, 7, 17-20]. To our knowledge assessment of MU in this way is unique. Since our focus was on the quality of care for ethnic minorities, the assessment took place in a multicultural medical setting, thus validity for different ethnic groups of patients must be tested.

Aims of the study

First, to develop a more objective measurement of mutual understanding between GP and patient. Second, to determine the validity of this instrument (by assessing content validity, construct validity and criterion validity).

Theoretical and methodological basis of the instrument

In developing a measurement for MU three main theoretical or methodological approaches were used. First, we used Kleinman's theory about the influence of culturally determined views on health beliefs ('clinical reality') and the necessity for physician and patient to exchange these views, and the accompanying explanatory models during the consultation [5, 18, 19]. Only with knowledge about each other's views and explanatory models can patient and physician reach understanding about medical treatment. According to Kleinman's theory, we assumed that MU was necessary for agreement about treatment and for patient's compliance and perception of good care. Therefore, in this study MU was assessed by investigating each other's opinion about the health complaint, diagnosis and treatment during the consultation.

Second, to assess MU between physician and patient during the consultation we had to establish important consultation aspects on which understanding was deemed to be necessary. Because good structuring or phasing of consultations by physicians is considered to be important for a clear formulation and good handling of health problems [21, 22], we used the aspects which are derived from the method of phasing or structuring of consultations by the physician (S.O.A.P. method: see Methods section) [22, 23].

Finally, to assess criteria for MU at each consultation phase and for overall judgment of MU, we used a consensus method of decision-making called the Nominal Group Technique or expert-panel meeting, which is regarded as a valid method for developing research outcome measurements [24-26].

Methods

Type of study and data collection

This study was carried out within the framework of a randomised intervention trial*.

A total of 178 GPs working in neighbourhoods with a multiethnic population in Rotterdam received in October 1999 a mailed invitation to participate in the study. After a telephone follow-up 1 month later, 38 agreed to participate. In March, April and November (i.e. three measurement times) each GP was asked to complete a questionnaire about the consultation.

All patients who visited the participating GPs on one of the three measurement times, were asked to participate.

Participating patients had to agree to an interview (at home, lasting 1-1.5 hour) in their preferred language (Dutch, Moroccan-Arabic, Moroccan-Berber, Turkish, English, French) 3 to 8 days after the consultation, and agree to examination of their medical record. For children aged up 12 years, the parents were interviewed. Adolescents aged 12 to 17 years were excluded because we expected that they would have problems with answering the questions.

The GPs had to complete a questionnaire about the content of each consultation with the participating patients. Physicians and patients were asked to give their own opinion and an estimate of the other person's judgement about identical consultation aspects.

Assessment of mutual understanding: 1) salutation and presentation of the health complaint, called the subjective aspect (S), 2) gaining objectivity about the presented health complaints (O), 3) the diagnosing or analysing aspect (A) and 4) the aspect of treatment, advice or plan (P) [22, 23]. Because in Kleinman's theory a person's clinical reality also depends on his view about the causes of health complaints and illness, we added questions about the cause of the health complaint, i.e. the (C) aspect. Thus five consultation aspects (C-S.O.A.P.) were used to assess MU. The patient's interview and the GP's questionnaire contained similar questions about the C-S.O.A.P. aspects. For both physician and patient C.S.A. were explored in open questions, and questions about the phases O and P were answered with yes/no from a list of alternatives (*see Appendix*).

We assessed the MUS (mutual understanding scale for health care) by comparing the answers of the physician and patient to questions about all C-S.O.A.P aspects. However, to develop a scale of MU for the complete consultation two steps had to be taken.

First, we had to develop criteria to assess MU for each C-S.O.A.P phase and, second, their joint contribution to MU for the entire consultation (i.e. for all 5 aspects together) had to be assessed (Fig.1).

* Rotterdam Intercultural Communication In Medical setting Study: RICIM Study.

Figure 1 **Development of a measurement for the mutual understanding scale (MUS) between patient and physician: aims of the two expert panel meetings**

Meeting 1 Criteria for mutual understanding (MU) on consultation aspects				**Meeting 2** Weighting of contribution of consultation aspects to mutual understanding scale (MUS)
Patient		*Physician*	*MU* *(for each C-S.O.A.P. aspect)*	*MU* *(for each C-S.O.A.P. aspect)*
(compared by screeners)				
C	↔	**C**	yes/no/doubtful	**C**
S	↔	**S**	yes/no/doubtful	**S**
A	↔	**A**	yes/no/doubtful	**A**
(compared by computer)				**MUS** (MU of total consultation)
O	↔	**O**	yes/no	**O**
P	↔	**P**	yes/no	**P**

C: cause of health complaint S: presented health complaint O: medical investigation and questioning
A: diagnosis P: therapy, treatment or advice

Each of the two group meetings was structured according nominal group technique, which contains 4 steps [24-26]. Step one is the silent phase of generating and writing down ideas. Step two is a round-robin feedback from group members to record each idea. Step three is a discussion round to clarify and evaluate each recorded idea. Step four is the individual voting on priority of ideas; the group decision is mathematically derived through rating or rank ordering.

The expert panel (consisting of 11 persons: 4 GPs, 3 psychologists or social workers, a practice nurse, an ethnic link worker, and two researchers) discussed how to score the answers to the open questions (C-S-A). Of the panel members 40% were of non-Dutch ethnic background, 40% were male, and GPs were in the minority, to avoid their opinion dominating.

In the first meeting the expert panel decided on criteria for MU on the open questions of each C-S-A aspect as a guideline for two screeners. For the components medical examination (O) and therapy (P) the same questions were given both patient and physician and answers (yes/no) were compared by computer: in case of any discrepant answers we considered MU to be absent (*see Appendix*).

The answers to the open questions (C-S-A) were compared by two screeners according to the expert panel's instructions (one screener had a Dutch background and the other a Turkish background). The screeners, who were blinded for patient characteristics (e.g. gender, age, ethnicity, etc.), assigned a score –1 (no MU), 0 (doubtful MU) or +1 (good MU) for each C-S-A aspect. They had a consensus meeting after comparing the first 30 consultations and then the remaining consultations were scored.

In a second meeting the expert panel decided on the extent to which the various components (C-S.O.A.P.) contributed to the total result of the consultation on MU, i.e. MUS. For each aspect each panel member assigned a score from 0 (no priority) to a maximum of 10 points. The final result was assessed by the mean of all the given scores. In case any consultation phases did not take place due to different types of consultations (e.g. psycho-social complaint without O or P phase; consultation for a check-up without P phase), the panel decided on an adapted set of weights (i.e. levels of weighting) in the same way.

Finally, for each screener the total consultation score (with O and P consultation aspects) was computed. The calculation of the total MU of the consultation, based on the weights as assessed by the panel, ranged from –1 (total misunderstanding) to +1 (total understanding). The interrater reliability was computed for each C-S-A phase and for the total consultation score of MU (with O and P), with intra class correlation coefficients.
In case of a difference of more than one point between both screeners, for the total consultation score of MU, a consensus meeting was held.
Finally, the mean score of both screeners was computed as a final score on mutual understanding (MUS score) for each consultation.

Assessment of validity
To assess the validity of the instrument we assessed content, construct and criterion validity.

Content validity (does the scale really measure MU?) was attained by using a validated technique of decision-making and comparing MU on different consultation aspects [22, 24, 26, 27]. Construct validity (does MUS correlate with criteria which are theoretically correlated with MU?) was tested by determining the relationship between the score on MUS and several patient characteristics. The investigated patient characteristics (all asked in the home interview) were self-perceived language proficiency (good versus moderate and poor), age, income, education and country of birth [28].
Validity of a construct was considered to be good in case of a significant relationship (p-value <0.05) in the good direction of a patient characteristic with MU. Every construct that showed good validity improved the construct validity of MUS (at least 75% of all constructs should be valid). Concerning the direction of the relationship of the patient characteristics with MU: we expected young, well-educated patients and patients with good language proficiency to have better MU with their GP than elderly, poorly educated patients and those with poor language proficiency. We also expected Dutch and Surinamese patients to have better MU, because of a more similar cultural background (and therefore more western views and expectations of Dutch healthcare), than patients from Morocco and Turkey.

Criterion validity (does the scale correlate with criteria or attributes known to be related with MUS?) was tested in the following ways:
1) by determining the relation between the consultation score on MUS and the GP's answers to the following questions: "Were you able to explain everything to the patient?" "Was the patient able to explain everything to you?"

2) by comparing the consultation score on MUS with patient's understanding on consultation aspects (asked in the home interview); and the GP's perception of patient's understanding of each consultation aspect (asked in the GP's questionnaire).
3) by comparing the consultation score on MUS with 'other criterion measures' all asked in the patient's home interview: patient's compliance with advice or therapy (yes/no, or doubtful), patient's satisfaction with the consultation: (yes versus doubtful and no), patient's satisfaction about the GP in general: asked in the home interview and graded 1 very poor to 10 very good, patient's feelings to be taken into consideration by the GP (yes versus doubtful and no).

Statistical analysis

Analysis of the different relationships for construct and criterion validity was done by multilevel linear and logistic regression techniques because measurements were taken at two levels: GP and patient. The relative importance of patient characteristics was assessed with multilevel multiple linear and logistic regression. For validity all characteristics should have relationships with MUS in the expected direction and their relative importance is assessed by their significance level (p-value<0.05).

Results

The study comprised 986 consultations of which 430 (44%) consultations were with patients from an ethnic minority and 556 (56%) were Dutch patients. Of the 38 participating GPs, 9 were female and 2 had a non-Dutch ethnic background.. The final response rate was 41% and there was a higher response from Dutch patients than from non-Dutch patients (49% and 35%, respectively). This difference in response was mainly caused by a higher failure rate of the home interview with non-Dutch patients (59.3%) versus Dutch patients (40.7%). Response measured on different levels of participation is given in table 1.

Table 1 Response at different levels of participation

	Response			
	N	mean	SD	*%*
Patients invited to participate on GP's office	2407			
Age		43.4	17.8	
Sex (% female)				*62.3*
Ethnicity (% Dutch)				*48.5*
Patients included during consultation	1478			
Age		---*	---*	
Sex (% female)				*61.4*
Ethnicity (% Dutch)				*51.2*
Study group (matched GP and patient data)	986			
Age		46.8	17.5	
Sex (% female)				*62.8*
Ethnicity (% Dutch)				*56.4*

* Not registered

N Number of patients

Development of mutual understanding scale (MUS)

The expert panel formulated several criteria for assessing MU:

First, patient and GP had to agree upon the nature and duration of the presented health complaint, especially in case of a more serious health complaint. Second, agreement about diagnosis and cause of the health complaint was not decisive but both had to know each other's opinion about it. Third, agreement about the nature of the health complaint and diagnosis were more important than agreement about the duration of the health complaint or understanding of each other's perceived cause of the health complaint. Finally, when a screener was in any doubt about the mutual understanding of an item, this item was scored (at least) doubtful MU.

For the cause of the health complaint (C) the interrater reliability (intraclass correlations) between the two screeners was only 47%. For the kind of health complaint (S) and diagnosis (A) it was 74% and 63%, respectively. For the listed choices about medical investigations (O) and therapy (P), the question of reliability was not applicable. The mean interrater reliability for the total MU of the consultation for both screeners was 82%.

Table 2 gives the panel's decision about the set of weights, including the adapted sets due to non-applicable consultation aspects. Mutual understanding on the nature of the health complaint was considered to be most important and MU on medical examinations the least important.

Table 2 The relative contribution of the individual consultation aspects to total consultation mutual understanding.
(For all aspects and with absent examinations and treatment aspect)

	All aspects	**Absent medical examinations**	**Absent medical treatment**	**Absent examinations & treatment**
N=986	**N=851**	**N=81**	**N=48**	**N=6**
	% contribution	% contribution	% contribution	% contribution
Nature of health complaint	30	35	40	45
Cause of health complaint	20	20	25	30
Diagnosis	15	20	20	25
Medical examinations	10	X	15	X
Medical treatment	25	25	X	X
Total MU	*100*	*100*	*100*	*100*

X: missing consultation aspect

N: number of patients

Table 3 gives the mean MU scores (ANOVA) of patients from different ethnic backgrounds, ages and socio-economic backgrounds. Dutch and Surinamese patients had better MU with their GP than patients from Cape Verde, Morocco and Turkey. The patient characteristics had significant relationships (results of multilevel regressions) with MU in the expected direction.

Table 4 shows the relative importance of relationships between MU and patient characteristics: ethnicity, age language and proficiency are the most important predictors for MU, independent from income and education which are less important.

Table 3 Relationship between patient characteristics and mutual understanding: (significance of relationships is given in β and p-values as result of multilevel regressions)

Patient characteristics		Number of patients	Mean MU	β	p-value
				Muli-level regression	
Ethnic background					
	Surinam	(91)	+0.14	-0.047	0.41
	Dutch Antilles	(30)	+0.003	-0.172	0.07
	Morocco	(37)	-0.03	-0.206	0.02
	Turkey	(131)	-0.002	-0.184	0.0002
	Cape Verde	(28)	-0.02	-0.205	0.03
	Other	(110)	+0.09	-0.096	0.07
	Dutch	(556)	+0.18	0.0000	--
Age [1,2,3]					
	0-11 [3]	(9)	+0.33		
	18-30	(185)	+0.15		
	30-50	(383)	+0.15		
	50-65	(231)	+0.10		
	>65	(170)	+0.05		
				-0.003	0.0020 [1,2,3]
Language proficiency					
	poor	(88)	-0.14	-0.311	0.0001
	moderate	(148)	+0.06	-0.111	0.0139
	good	(687)	+0.17	0.0000	--
				0.145	0.0001 [2]
Income					
	< € 499	(52)	+0.05		
	€499- €862	(235)	+0.09		
	€862- €1225	(249)	+0.15		
	€1225- €1588	(122)	+0.21		
	€1588- €1951	(57)	+0.27		
	> €1955	(28)	+0.26		
				0.052	0.0010 [2]
Educational level					
	Primary school not completed	(46)	-0.14		
	Primary school completed	(285)	+0.02		
	Lower professional & lower secondary education	(209)	+0.19		
	Medium professional	(134)	+0.24		
	Higher secondary education	(52)	+0.16		
	High professional education & university	(111)	+0.25		
	Other	(102)	+0.11		
				0.067	0.0001 [2]

1 Tested as continuous measurement in age per year.

2 Tested for linear trend with multilevel regression

3 Age also tested excluding the youngest group (0-11 years): p-value 0.004*

Table 4 Regression coefficients (β) and significance levels expressing relative importance of patient characteristics on mutual understanding (result of a multivariate multilevel regression)

patient characteristics	β	p-value
Ethnic background (Dutch versus non-Dutch)	2.53	0.012
Age	-3.10	0.002
Language proficiency	3.32	0.001
Income	0.86	0.390
Educational level	1.40	0.162

For criterion validity (Table 5) we found good relationships for all GP-related criteria (the GP's perception of explaining to the patient, the patient's ability to explain to the GP, and the patient's understanding of consultation aspects) but for only 2 of the 5 patient-related criteria (consultation satisfaction, and patient's feeling that the GP had consideration for him).
No relationship was found between MU and patient's perceived understanding of consultation aspects, patient's satisfaction about the GP in general, and patient compliance.

Table 5 Relationship between criteria and mean mutual understanding (MU). (Significance in p-values as result of multilevel linear regressions. Validity assessed by direction of relation and significance)

Criteria *GP-related criteria*		Mean MU	(N)	Criterion validity
GP's perceived ability of explaining to the patient in general				
	very good	+0.21	(151)	
	good	+0.18	(504)	
	reasonable	+0.02	(264)	+
	poor	-0.06	(50)	
	very poor	+0.004	(4)	
		p-value 0.0001		
GP's perception of the patient's ability to explain to the GP				
	very good	+0.24	(194)	
	good	+0.16	(525)	
	reasonable	-0.004	(210)	+
	poor	-0.17	(36)	
	very poor	-0.04	(6)	
		p-value 0.0001		
Perceived patient's understanding of consultation aspects by the GP				
	yes	+0.14	(892)	
	no/doubtful	-0.03	(88)	+
		p-value 0.004		
Patient-related criteria				
Patient's understanding of consultation aspects				
	yes	+0.13	(931)	
	no/doubtful	+0.06	(38)	-
		p-value 0.456		
Consultation satisfaction				
	yes	+0.14	(825)	
	no/doubtful	+0.04	(153)	+
		p-value 0.0205		
Patient's feeling that the GP had consideration for him				
	yes	+0.15	(813)	
	no/doubtful	+0.005	(137)	+
		p-value 0.0026		
Patient compliance				
	yes	+0.14	(869)	
	no/doubtful	+0.07	(95)	-
		p-value 0.243		
Satisfaction with GP in general				
	very good	+0.11	(290)	
	good	+0.15	(559)	
	adequate	+0.10	(94)	-
	poor	+0.03	(15)	
	very poor	-0.09	(14)	
		p-value 0.387		

+ criterion validity **-** no validity for criterion N= number of patient

Discussion

In the present study it was possible to construct an objective instrument (MUS) to measure mutual understanding (MU) with sufficient validity.

Since this is the first study to develop an objective instrument for MU during the consultation the following decisive features have to be discussed: Firstly, we based the study on Kleinman's theory on 'concordance in explanatory models' and assumed MU about consultation aspects, (which were related to the phasing of consultations used by physicians) to be important [22, 23]. Secondly, we added an additional aspect about the cause of the health complaint but there was poor agreement between the two screeners about this aspect, which we expected to be important beforehand because of Kleinman's theory [5, 19]. So, even for well-instructed screeners, this aspect was the most difficult. The different cultural background of the two screeners may have caused this discrepancy (as was confirmed in the consensus meeting) and more specific questions (on the cause of the health complaint) should be developed to overcome this problem. Due to the panel's decisions (about the weighting of consultation aspects for MUS), the influence of this discrepancy between the two screeners with regard to the C aspect did not have much influence on the overall interrater reliability for MUS, but the argument concerning the theoretical importance of the C aspect (according to Kleinman's theory) remains.

Thirdly, it appeared easy to create criteria for scoring the open questions (C-S-A aspects) and for the weighting of all aspects to MUS by means of the nominal group technique. Strict chairing and careful formation of the expert panel was necessary so that no single person's opinion could dominate the decisions. Especially the physicians wanted more emphasis on medical treatment (P aspect) and less on cause and kind of health complaint (C and S aspect). Fourthly, we must consider that physicians completed the questionnaire directly after the consultation whereas patients were visited 5-8 days after the consultation and this delay may have caused changes in the patient's perception and opinion.

Fifthly, in our opinion MU was not overestimated as a result of patients giving social desired answers. After all we measured the knowledge about each other's opinion, examinations done and treatment proposed. However, with regard to some patient-related criteria (such as compliance) social desirability may have played a role.

Limitations of the study

In this study MU was limited to knowledge about each other's opinion about consultation aspects between physician and patient and concordance was not required. There was a difference in response between Dutch and non-Dutch patients (especially in the home interviews), but this should not have had a strong influence on the results because there was sufficient variation between and within the patient groups.

With regard to validity of the instrument (MUS), the following comments can be made.

Perhaps we should have considered the influence of other aspects (not explored in this study) on MU [e.g. differences in 'medical culture' between countries [29] differences in gender of patient and physician [30-32], or whether other types of validity (e.g. discriminant validity) should also be tested in relation to validity]. However, in the present study the accent was on the exchange of views and beliefs between physician and patient. They were considered more important for MU than any other (possible) aspects that could explain miscommunication and misunderstanding (e.g. concordance and satisfaction).

Content validity was assumed to be good based on the use of specific consultation phases or aspects [22, 23] and by the use of a valid method for decision-making.

Construct validity was shown to be good because MUS differed between the ethnic groups, age and socio-economic groups in accordance with previous studies [31, 33-35]. Surprisingly, there was no strong relationship between the socio-economic factor and education in the multivariate model; they were of less importance for MUS than age, ethnicity and language proficiency. Because ethnicity remains an important predictor for MUS after adjustment for language proficiency, cultural differences between patients are apparently strong predictors for MU. There may also be a relationship between language proficiency, cultural background and MU in the consultation, which is consistent with Kleinman's theory of differences in clinical reality [5].

Criterion validity was good for GP-related perceptions, but not for all patient-related perceptions, such as patient's understanding of consultation aspects and compliance. Also, patient's satisfaction with the GP generally did not correlate with MU. This may be due to a conceptual discrepancy between some patient's characteristics and MU. For instance, 'satisfaction with the physician' and 'patient compliance' do not necessarily reflect MU, i.e. there may be MU without satisfaction or compliance. Otherwise, patient's perceived understanding of consultation aspects and their compliance scored extremely high, which is in contrast to other studies [4, 36]. However, as mentioned before, some patients tend to give socially desirable answers, and non-compliance is a very complex entity [37, 38].

Conclusions

We conclude that the MUS is an objective, strong and valid instrument that can be used for large-scale quantitative studies or for professional training. This instrument measures an important outcome of the consultation that, in our opinion, is more important for the quality of the consultation than patient's satisfaction or concordance between physician and patient. We consider MU to be a prerequisite for both satisfaction and concordance. The most important factors related to mutual understanding were patient's language proficiency, ethnic background and age. The relevance of this instrument is that the influence of the (objectively scored) understanding of exchanged views and opinions during the consultation can be investigated. The relationship with other aspects of the patient-physician relation during the consultation (e.g. patient's satisfaction and perceived quality of care), which are considered to be important [4, 39, 40] can also be investigated. The instrument can also be used in a multicultural practice setting to investigate the influence of cultural differences between physician and patient, where the explicit exchange of views is regarded as most important [5, 16]. This may contribute to more knowledge about the prerequisites for good patient-physician relationships and (intercultural) communication during the consultation.

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Appendix

A Open questions compared by two screeners

Aspect	Patient's questions	Physician's questions
S	What was the most important health complaint for which the physician was visited? How long has the health complaint persisted?	What was the most important health complaint for which the patient consulted you? How long has the health complaint persisted?
C	What caused the presented health complaint in your opinion? What caused the health complaint according to the GP? Which other possible causes played a part?	What caused the health complaint according to the patient? What caused the presented health complaint in your opinion? Which other possible causes played a part?
A	What diagnoses did the GP make about the health complaint? What is your judgement (diagnosis) about the health complaint?	What is your diagnosis on the health complaint? Which diagnoses has the patient made about the health complaint?

B Listed yes/no questions

Aspect	Questioned medical event		Occurred according to the patient	Occurred according to the physician
			Yes/ No	Yes/ No
O	anamnesis			
	physical examination			
	Supplementary examination	▪ X-ray/ ultrasound / etc.	▪	▪
		▪ lab examinations	▪	▪
		▪ other……..	▪	▪
	Advice about lifestyle:	▪ rest	▪	▪
		▪ work	▪	▪
		▪ to stay inside / in bed	▪	▪
		▪ keep diet/ stop smoking	▪	▪
		▪ to exercise	▪	▪
		▪ other:……	▪ ……	▪ ……
P	Medication	▪ prescription:	▪	▪
		(kind of prescription)		
		……...	……	……
		……...	……	……
		home medication	▪	▪
		(advised home medication)		
		……...	……	……
		……...	……	……
	Referral	▪ paramedic	▪	▪
		(specialty)		
		……...	……	……
		▪ psychologist/ social worker	▪	▪
		▪ medical specialist	▪	▪
		(specialty)	……	……
		……...		▪
		▪ other:	……	……
		……...		
	Consultation with specialist			
	Advice to return for control visit			
	Other ……..			

CHAPTER 6

CULTURAL DISSIMILARITIES IN GENERAL PRACTICE

Development and validation of a patient's cultural background scale

Submitted

Abstract

Introduction

As a consequence of increased confrontation with patients from different ethnic backgrounds, physicians encounter more communication difficulties due to poor language proficiency and different culturally-defined views about illness.

This study aimed to develop and validate a 'patient's cultural background scale' in order to classify patients based on culturally-conditioned norms instead of on ethnicity. The scale can be used to assess the influence of patient's cultural background on the medical consultation.

Methods

We included a total of 986 patients from 38 general practices with a multi-ethnic population. From a list of 36 questions, non-contributing and non-consistent questions were deleted. The scale was constructed from the remaining questions by principal component analysis.

Internal validity was assessed by comparing the scale with two other methods of construction: 1) by allocating the questions to four main dimensions beforehand on theoretical grounds, followed by a second order principal component analysis; and 2) by a forced one-factor principal component analysis. The results of patients' scores on all three scales were compared, as was the conformity of included questions. Cronbach's alpha determined the internal consistency of the selected method.

Construct validity was assessed by comparing the dimensions found with known dimensions from literature.

Criterion validity was determined by comparing the patient's score with criteria assumed or known to have a relationship with cultural background.

Results

Comparison of the three scales showed a good internal validity. Irrespective of the chosen method, the scale consisted of the same 20 questions. The internal consistency of the scale was good (Cronbach's alpha 86%). Construct validity was good; dimensions found in this study covered known published dimensions. Criterion validity was reasonably good for most criteria but was poor for income.

Conclusion

A valid patient's cultural background scale was developed, which can be used in large-scale quantitative studies.

Introduction

In the western world physicians are increasingly confronted with patients from different ethnic backgrounds. Besides language proficiency, cultural differences play an important role in interethnic encounters [1-7]. Even in consultations between patients and physicians from the same cultural background, different beliefs about health and treatment can influence the communication; however, in the latter case the physician is better able to see these differences because of this common background. In contacts with patients from different cultures the physician's internal reference point of the common cultural background is missing [8, 9] and differences in views can be magnified, leading to increased difficulties in communication [10, 11].

In the present study, carried out in the framework of a randomised intervention trial on intercultural communication between physician and patient*, our definition of culture is: "An evolving system of moral consciousness, norms and (lifestyle) regulations in a group of people. Culture is passed on from generation to generation, becomes internalised and becomes an unconscious guideline for behaviour and outlook on life" [12]. In order to investigate the influence of the patient's cultural background on the medical consultation, patients should be culturally scaled; however, such a scale, for use in the Dutch medical context is lacking. Because of the large number of different cultures, we need to establish the most relevant cultural differences in order to elucidate how these differences can provoke misunderstanding and miscommunication in the medical consultation.

Phinney [13] states that it is essential to assess which cultural dimensions can be linked to outcomes of interest, in our case healthcare, and concludes that little is known about this. She reviews a number of attempts to describe the dimensions in which the culture of minority groups in the United States differs from the white majority and found four dimensions. Most important is the difference between individualism and collectivism, which differentiates the mainstream American and Western European cultures from the Asian, African and Latin American cultures [14, 15]. Less clear are differences in gender roles, in authority acceptance and in time perspective. These cultural dimensions correspond with dimensions found by Hofstede [16] to distinguish value dimensions relevant across cultures. He found five dimensions: degree in which the inequality in distribution of power is accepted; collectivism versus individualism; degree in which persons feel threatened by uncertain situations (high or low uncertainty avoidance); differences in gender roles; and short-term (preservation of tradition) versus long-term orientation.

* Rotterdam Intercultural Communication In Medical setting Study: RICIM study .

Table 1 Authors and cultural dimensions used to explain differences between cultures

Author	Cultural dimensions				
Triandis [14]	Individualism				
Phinney [13]	Individualism				
Hofstede [16]	Individualism	Femininity	Authority acceptance	Uncertainty avoidance	Long-term thinking
Martens [19]	Individualism	Male / female role pattern	Secularisation	Other modern opinions	

However, it is questionable whether all these dimensions are distinct from one another and whether or not they in fact all point in the same direction, as claimed by Pinto [12]. Hall, one of the first to investigate differences between cultures, also speaks of cultures with 'low and high context' [17]. If cultures can only be determined by their scores on the different dimensions, they are defined by the coordinates of the different dimensions, as in Hofstede's study [16, 18]. But if all dimensions point in the same direction the scores on the different dimensions can be summed into one scale or dimension of traditional versus modern (or western) cultural background.
Table 1 gives the main dimensions used by researchers to explain differences between cultures [13, 14, 16, 17, 19].

In this study we aim to develop a one dimensional measurement instrument to scale patients on the basis of their cultural views and norms, which can be used in the Dutch health care context.
The aim of this study is:
First, to describe the construction of an instrument to assess the patient's cultural background based on cultural specific norms and views.
Secondly, to investigate the validity of this scale by assessing its internal validity, construct validity and criterion validity.

Methods

Data collection

A total of 178 GPs working in neighbourhoods in Rotterdam with a multi-ethnic population received a mailed invitation to participate in the study in October 1999. After a reminder by telephone, one month later, 38 agreed to participate. In March, April and November (i.e. three measurement times), all patients who visited the participating GPs on one of the three measurement times were asked to participate.

Participating patients had to agree to an interview (at home, lasting 1-1.5 hour) in their preferred language (Dutch, Moroccan-Arabic, Moroccan-Berber, Turkish, English, French) 3 to 8 days after the consultation, and agree to examination of their medical record. For children aged up to 11 years, their parents were interviewed. Adolescents 12 to 17 years of age were excluded because we expected that they would have problems with answering the questions. The home interview consisted of questions on background characteristics, culturally determined opinions and attitudes, the course and content of the consultation, and questions on satisfaction with the GP and the medical consultation.

Construction of the patient's cultural background scale (based on norms and values)

We started with 24 questions that covered cultural-specific views and norms used in earlier studies in the Netherlands. This list of questions about the general orientation toward society generated four dimensions: male/female role patterns, individualism, secularisation, other modern opinions [19]. We added 12 self-developed questions, concerning the field of health care.

To assess whether a one-dimensional scale is as good as one with more dimensions we compared three methods of scale construction. In the first method dimensions were determined through factor analysis, the second method was a forced one factor analysis and the third a confirmative four factor analysis using beforehand factors found in an earlier study [19].

Principal method

The first three steps were performed to select the relevant questions and the last three to assess the scale-contribution of the remaining relevant questions.

Step 1: when questions were highly correlated (Pearson's correlation >.80), and with a very similar content, the one was chosen and the other deleted.

Step 2: principal component analysis was performed with all remaining questions and questions that loaded below 0.300 on all factors were deleted.

Step 3: By deleting questions that reduced the Cronbach's alpha of this provisional scale we assessed the optimal internal consistency of the provisional scale.

Step 4: with the remaining questions the definite principal component analysis was performed and all dimensions were categorized to their dominating subject in the questions involved.

Step 5: the provisional scale was completed by summing the factor scores for each question, because we wanted to construct one scale instead of many (one for each factor).

Step 6: the factor coefficients of the questions were summed in order to assess the relative contribution of each question to the scale.

Second method

Step 1 was similar to the principal method, but in step 2 and 4 a one-factor principal component analysis was performed.

Third method

Step 1 and 3 were similar to the principal procedure, but in step 2 a principal component analysis was performed by grouping beforehand all questions into the four dimensions found by Martens [19]. In step 4, using the resulting four-factor scores a one-factor analysis was performed (in a second order) to assess the scale.

Internal validity was assessed by comparing the results of the three scale constructions.
Using Pearson's correlation coefficients, the three methods were compared for the composition of the included questions, and the results of the patients' scores. We considered the principal method to be our definite scale construction based on methodological grounds, i.e. because dimensions found in literature (Table 1) and the addition of our own questions complicated the possibility to decide on definite dimensions on beforehand [19].
The internal consistency of the used scale was assessed by means of Cronbach's alpha.

We considered the principal scale to be internally valid: 1) when the scale had a high (≥ 75%) internal consistency, measured with Cronbach's alpha, 2) when the three methods resulted in scales which consisted of very similar questions (≤ 25% variation in the questions) and, 3) when the three scales resulted in comparable patient scores (≥ 90%) as measured with Pearson's correlations.

Construct validity Is the scale compiled from items which, on theoretical grounds, are related to cultural background?
Therefore the contribution of the cultural dimensions to the scale should be tested.
Because most of the questions were derived from a previous Dutch study, the dimensions found with the principal component analysis were expected to be the same as found earlier, i.e. male/female role patterns, individualism, secularisation, other modern opinions [19].
Criterion validity Does the scale correlate with criteria or attributes known to be related with cultural background?
To achieve good criterion validity, the relationship between patient characteristics (e.g. ethnicity, language proficiency, socio-economic status and educational level) and the score on the scale should be consistent with known ethnic-cultural differences in patient characteristics. So we expected the scores of Dutch patients, younger and higher educated patients to reflect more modern views (or western) and the score of non-Dutch, aged and less educated patients to reflect more traditional views. Dutch physicians experience more difficulties with patients from more

traditional Islamic cultures, such as Turkey and Morocco, than with patients from Surinam and the Dutch Antilles [10].

Therefore we tested the relationship between patient's cultural background score and the patient's ethnicity (determined by own and parental country of birth [20]), educational level, income, age, self-determined religiosity and language proficiency (all established during the home interview). Linear regression analysis was used to determine the relationships. To determine whether the relationships between the scale and the criteria were similar for the main ethnic groups, we performed analyses separately for each group (i.e. Dutch, Surinamese, Dutch Antillean, Moroccan, Turkish, Cape Verdian and others).

Results

Response

A total of 2407 patients were invited to participate of which 1005 (42%) were interviewed. The response rate was 51% for Dutch patients and 34% for patients from an ethnic minority. This study was part of an intervention study (that also used answers on questions about the consultation from the physician) we only used data that matched between physician and patient. The final study group of 986 patients consisted of 429 (44%) patients from an ethnic minority and 557 (56%) Dutch patients.

Patient characteristics

Table 2 gives data on the patient characteristics by ethnic groups.

Table 2 Patient characteristics

Total N=986	**Dutch N=557**	**Surinamese N=91**	**Dutch Antillean N=30**	**Moroccan N=37**	**Turkish N=131**	**Cape Verdian N=28**	**Other N=112**
Age mean in years (SD)	53 (17)	44 (14)	33 (11)	37 (10)	36 (14)	42 (12)	40 (14)
Income* (%)							
< € 499	5.6	2.8	20.0	3.4	5.8	13.0	14.8
€ 499 to € 862	28.9	27.8	40.0	48.3	33.7	39.1	33.3
€ 862 to € 1225	32.4	40.3	20.0	31.4	38.5	34.8	28.4
€ 1225 to € 1588	19.4	13.9	12.0	6.9	16.3	13.0	11.1
€ 1588 to € 1951	8.8	11.1	4.0	0.0	3.8	0.0	9.9
> € 1951	4.9	4.2	4.0	0.0	1.9	0.0	2.5
Education (%)							
Primary school not completed	2.9	2.3	3.3	21.4	11.0	14.8	3.8
Primary school completed	29.8	31.0	16.7	28.6	39.8	51.9	20.2
Lower professional & secondary education	25.6	27.6	20.0	17.9	14.4	18.5	13.5
Medium professional & secondary education	13.6	19.5	23.3	10.7	15.3	3.7	13.5
Higher secondary education	3.1	2.3	3.3	10.7	6.8	7.4	17.3
High professional education & university	13.6	10.3	16.7	0.0	5.9	0.0	15.4
Other	11.2	6.9	16.7	10.7	6.8	3.7	16.3
Proficiency in Dutch (self-perceived) (%)							
Poor or speaks no Dutch	1.0	2.2	7.1	29.7	34.4	25.0	14.2
Average	2.0	15.6	28.6	32.4	34.4	53.6	41.5
Good	97.0	82.2	64.3	37.8	31.3	21.4	44.3
Religious (% yes)	33.7	94.4	83.3	97.3	96.2	89.3	76.2

Missing values in the averages:

Age	5
Income	244
Education	49
Proficiency Dutch	65
Religiosity	16

Scale construction

Table 3a lists the questions that were deleted from the original list of 36 questions, with the reason for deletion.

Table 3b gives the factor loadings of the remaining 20 questions grouped by the four main dimensions (with eigenvalue ≥ 1) and their contribution to the scale.

Table 3 Construction of the scale: questions and dimensions of the cultural background scale

Table 3a. Deleted questions	**Author[1]**	**Reason for deletion[2]**
Do you find it important that 17-year-old children have consideration for others?	**Martens**	**I**
Do you find it important that 17-year-old children think and act autonomously?	**Martens**	**I**
You see the 16 year-old daughter of a relative kissing a boy of 18 years. Is she permitted to do that?	**Harmsen**	**C** **See Table 3b, question 2**
If you witness a nephew causing an accident, do you tell the police?	**Harmsen**	**L**
The physician explains to you that you are suffering from diabetes and have to take chronic medication, but you do not understand. Do you tell him this?	**Harmsen**	**L**
A married couple asked the physician for sterilisation of the woman. Who has to answer the physician's questions, the man or the woman?	**Harmsen**	**L**
You have an appointment at the hospital but unexpectedly your brother arrives for a visit. Do you go to the hospital or not?	**Harmsen**	**L**
The teacher of your child tells you that he/she is stealing. Does your child have to be chastised physically?	**Harmsen**	**L**
Does it matter when a child steals whether the police or a family member catches him?	**Harmsen**	**L**
When you have a backache for one week and your physician does not want to make an X-ray, do you accept this decision?	**Harmsen**	**L**
In a family (father/ mother/ children) who has to deal with financial matters?	**Martens**	**I**
Is a boy aged 17 years permitted to live on his own?	**Martens**	**C** **See Table 3b, question 13**
Is a girl aged 17 years permitted to live on her own?	**Martens**	**I**
Is it unpleasant when your daughter wants to marry a man with another religion?	**Martens**	**C** **See Table 3b, question 15**
Is a child aged 17 years permitted to stop schooling?	**Martens**	**I**
Is a child aged 17 years permitted to decide about self-earned money?	**Martens**	**I**

1) Martens [19]

2) Reason for deleting question in method 1: C: correlation with question (see question included in Table 3b)
L: loading below 0.30 in first principal component analysis
I: lowering internal consistency of scale (Cronbach's alpha)

Table 3b. Selected questions		**Author**[1]	**Dimension**[2]				**% scale-contribution**
			1	**2**	**3**	**4**	
1	Do you find it important that 17-year-old children obey their parents?	**Harmsen**	-	-	0.51	-	4
2	You see your 16-year-old daughter kissing a boy aged 18. Is she permitted to do that?	**Harmsen**	-	0.35	0.58	-	5
	Do you agree with the following statements?						
3	A physician can prescribe contraceptive medication to a girl aged 16 years without parental knowledge.	**Harmsen**	-	-	0.78	-	5
4	A physician can prescribe contraceptive medication to a woman without her husband's knowledge.	**Harmsen**	-	-	0.66	-	6
5	Who has to stay home when the children are ill (mother/ father/ both: always or most times) when both father and mother has a job.	**Martens**	0.59	-	-	-	4
6	In a family (father/ mother/ children) who has to take care of the children?	**Martens**	0.59	-	-	-	4
7	In a family(father/ mother/ children) who has to cook?	**Martens**	0.78	-	-	-	2
8	In a family (father/ mother/ children) who has to earn a living?	**Martens**	0.77	-	-	-	3
9	Decision about a big purchase can best be made by the man.	**Martens**	-	0.44	-	0.45	7
10	The responsibility for the household can best be taken by the woman.	**Martens**	0.65	0.33	-	-	4
11	The responsibility for money can best be taken by the man.	**Martens**	0.36	0.43	-	0.44	7
12	An education is more important for boys than for girls	**Martens**	-	-	-	0.83	9
13	It is more important for boys than for girls to earn their own living.	**Martens**	-	-	-	0.81	9
14	A woman has to stop working when she gets a child.	**Martens**	0.42	-	-	-	3
15	It is unpleasant when your son wants to marry a girl with another religion.	**Martens**	-	0.60	-	-	3
16	Children have to attend a school that supports the parental religion.	**Martens**	-	0.64		-	5
17	In the Netherlands men and women are too free with each other.	**Martens**	-	0.51	0.47	-	7
18	In the Netherlands people are too open about sex.	**Martens**	-	0.40	0.52	-	6
19	If somebody is suffering pain and has a limited life expectancy he/she can decide about ending life.	**Martens**	-	0.59	0.33	-	4
20	It is a pity that in the Netherlands religion is becoming less important.	**Martens**	-	0.60	-	-	4

1) Martens [19]

2) Dimension 1: masculine-feminine role pattern
Dimension 2: secularisation – religiosity
Dimension 3: individualism – collectivism.
Dimension 4: other modern opinions

- : *loading less than 0.30*

Table 4 gives the mean score on the patient's cultural background scale for the different ethnic groups. Dutch patients scored most modern and Moroccan patients most traditional.

Table 4 Mean score on the Patient's Cultural Background (PCB) scale for the different ethnic groups.

	Patients' cultural Background Scale		
Ethnic background	**Mean score PCB scale**	**SD**	**Number of patients***
Surinam	6.0	1.5	87
Dutch Antilles	6.3	1.3	29
Morocco	4.5	1.5	34
Turkey	4.7	1.7	121
Cape Verde	5.8	1.4	27
Other	6.4	1.7	97
Dutch	7.0	1.5	522

* Missing data on PCB scale score: 71

Internal validity

The Pearson's correlation between scores determined with method 1 and 2 is 98%, between method 1 and 3 is 92% and between method 2 and 3 is 94%. The three scales consisted of the same 20 questions irrespective of the chosen method. The Cronbach's alpha of the principal scale was 0.86, which indicates good internal consistency.

Construct validity

Because we found the same four dimensions as found by Martens [19] with small differences in items and loadings, we gave the dimensions similar names: religiosity-secularity, masculine-feminine role pattern, individualism-collectivism and other modern opinions (Table 1).

Criterion validity

Table 5 gives mean scores for the categories of patient characteristics and their significance level. The scores of the Dutch patients showed them to be more 'modern' and Moroccan and Turkish patients most 'traditional'. Patients with higher education, higher income and better language proficiency scored higher on modern views than older and more religious patients.

Table 5 Mean scores on the Patient Cultural Background scale and level of significance (linear regression).

patient characteristics	*P*atient *C*ultural *B*ackground scale score			
	Mean	(S D)	*Number*	p-value
Ethnicity				
Dutch	7.0	1.5	*522*	0.000
non-Dutch	5.6	1.8	*398*	
Education				
Primary school not completed	5.0	(1.8)	*41*	0.000
Primary school completed	5.8	(1.7)	*269*	test for linear trend
Lower professional & secondary education	6.6	(1.4)	*201*	
Medium professional & secondary education	6.7	(1.5)	*126*	
Higher secondary education	6.9	(1.7)	*48*	
Higher professional education & university	7.6	(1.4)	*106*	
Other	6.8	(1.9)	*93*	
Income				
< € 499	5.9	(1.7)	*47*	0.000
€ 499 to € 862	6.0	(1.7)	*219*	test for linear trend
€ 862 to € 1225	6.5	(1.8)	*231*	
€ 1225 to € 1588	6.7	(1.7)	*121*	
€ 1588 to € 1951	7.1	(1.7)	*54*	
> € 1951	7.8	(1.4)	*26*	
Proficiency in Dutch (self-perceived)				
poor or speaks no Dutch	4.4	(1.6)	*74*	0.000
average	5.4	(1.8)	*140*	
good	6.8	(1.6)	*647*	
Do you practice a religion?				
yes	5.4	(1.7)	*343*	0.000
not practising but in general religious	6.6	(1.5)	*183*	test for linear trend
not religious at all	7.2	(1.4)	*383*	
Age categories (years)				
18-30	6.6	(1.9)	*177*	0.03
30-50	6.4	(1.8)	*363*	test for linear trend
50-65	6.3	(1.7)	*213*	
>65	6.2	(1.5)	*153*	

Table 6 gives the direction of the relationship between the scores and the different criteria for the main ethnic groups of patients and the relative importance of this relationship. Direction (β) of the relationship was reasonably good for education, age, religiosity and language proficiency, except for Dutch Antillean, Cape Verdian and to some extent the ethnic group "others". There was a poor fit for income.

Table 6 Importance and direction of the relationships between patient's cultural background score and criteria for the different ethnic groups (linear regression)

		Surinam	D.Antilles	Morocco	Turkey	Cape Verde	others	Dutch
Education †	β	**0.27**	**0.15**	**0.44**	**0.27**	***-0.06***	**0.29**	**0.34**
	p-value	0.03	*0.36*	0.02	0.01	*0.82*	0.01	0.00
Income ‡	β	**0.20**	**0.11**	**0.10**	**0.10**	**0.02**	**0.22**	**0.22**
	p-value	0.04	*0.47*	*0.74*	*0.33*	*0.93*	*0.33*	0.00
Age ††	β	**-0.05**	**-0.05**	**-0.06**	**-0.05**	**-0.04**	**-0.01**	**-0.03**
	p-value	0.00	0.05	0.02	0.00	*0.09*	0.*32*	0.00
Religiosity ‡‡	β	**1.04**	**0.80**	***-0.02***	**1.13**	**0.37**	**0.98**	**0.46**
	p-value	0.00	0.04	*0.98*	0.00	*0.44*	0.00	0.00
Language	β	**1.29**	**0.53**	**0.74**	**0.94**	**0.05**	**0.97**	**not**
proficiency †††	p-value	0.00	*0.31*	0.03	0.00	*0.93*	0.00	**applicable**

Deviant p-value or β

The higher the score on the cultural background scale, the more modern the views.

† compared with highest educational level

‡ compared with highest income

†† compared with highest age

‡‡ comparing non religious with religious

††† compared with good language proficiency

Discussion

In this study it was possible to construct a cultural background scale that proved to have strong content validity, internal validity, construct validity and sufficient criterion validity.

Construct validity

In the construction of the scale we included questions used in a previous study [19] in which four dimensions were found: religiosity-secularity, masculine-feminine role pattern, individualism-collectivism and other modern opinions (a combination of individualism-collectivism, male/female role patterns and sexuality). After adding our own questions, we found similar dimensions with quite similar contributing questions, as found in this earlier study [19].

Not all questions showed a strict relationship with one dimension as used by Hofstede and Phinney [13, 16]. Other studies have shown that strict male and female role patterns, religiosity and individualism–collectivism are important cultural features [12, 19]. Pinto claims that generally all dimensions point in the same direction and are interdependent of each other; he also claims that beneath the dimensions there is a (fine/coarse) structure of behavioural rules and communication codes which provokes differences in dimensions [12].'Fine meshed' cultures have many detailed and strict rules, whereas 'coarse meshed' cultures have few and less detailed rules. Western cultures are generally more 'coarse meshed' [12]. Prosperity, religion, social environment and individual factors determine the density (meshing) of the structure (in analogy one could consider the dimensions as the C atoms, which can be directed and structured as graphite or as a diamond. Both are constructed of only C atoms, but have a totally different density). The fact that in our study some questions were related to more than one dimension and others not clearly to any of them (e.g. sexuality, secularisation and education) supports Pinto's theory of 'coarse-meshed' and 'fine-meshed' structure of cultures. How the scale was constructed (method 1, summing four found dimensions; method 2, forced one dimension; method 3, division in dimensions on beforehand) did not matter; a one-dimensional scale was as good as a four-dimensional one. So perhaps Pinto and Hall are right in assuming a similar direction for all dimensions and therefore a cultural structure as being more important than the division into dimensions. Although other concepts of making culture operational could be explored, our scale showed good validity and is useful to study cultural differences.

Internal validity

Internal validity was high, i.e. the three methods of scale construction resulted in very similar scores. Moreover, the internal consistency of the final scale was high. We chose the principal procedure of scale construction in order to let the data generate a number of dimensions. We did this because we added our own questions and wanted to generate dimensions independent from the earlier findings. Furthermore, some questions covered more than one dimension and the discussion about culturally-determined views is too complex to decide on clear dimensions beforehand.

Criterion validity

Concerning criterion validity, for most of the criteria the differences in the score were as expected [21, 22].

The importance and direction of the correlation sometimes changed when we considered the trend in different ethnic groups. Age and education had a clear relationship with the cultural background score, whereas perceived religiosity and language proficiency had a reasonable relationship and income a poor fit with the score. Especially the Dutch Antillean, Cape Verdian and (to a somewhat lesser extent) Moroccan patients had poor (but not significant) outcomes with the expected trend. This conflicting trend maybe due to the small study groups, and because the Dutch Antillean group was much younger than the other groups. Because all the significant correlations had a similar and expected trend for the most important criteria (age and education) we conclude that the criterion validity was adequate.

Conclusion

A valid cultural scale score could be developed that showed interesting differences between patients from ethnic minorities and Dutch patients in the Netherlands. Although physicians do perceive cultural differences and may adapt their communication accordingly, it is unlikely that they can deal with all consequences during the medical consultation. Therefore, a more objective measurement of the patient's cultural background is needed to assess its influence on the communication between patient and physician, and on the course of the consultation. This may improve the care of patients who are not well understood and may be deprived of optimal care [2, 3, 22-24]. The constructed scale could be useful in large-scale quantitative studies dealing with the patient's cultural background.

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CHAPTER 7

IMPACT OF CULTURE ON PERCEIVED QUALITY OF CARE AND SATISFACTION WITH THE GENERAL PRACTITIONER

Submitted

Abstract

Introduction

Increased migration implies increased contacts for physicians with patients from different cultural backgrounds with different expectations about healthcare. Patients' satisfaction and perception about the quality of care are important determinants of quality aspects.

This study investigated whether differences in patient's cultural background and language proficiency are related to patients' perceived satisfaction and quality of care and, if so, which aspects of perceived quality of care determine these differences.

Method

Patients (n=663) from 38 general practices in Rotterdam were interviewed. Perceived quality was investigated using the Quote-mi, which has an ethnic-specific subscale and process (physician-patient interaction) subscale. Satisfaction was explored using three questions. With multilevel regression techniques the relation of patient characteristics and satisfaction and quality was analysed. Subsequently, the relation between the separate questions exploring quality and significant patient characteristics was analysed.

Results

For satisfaction aspects, age and cultural background were important determinants. Regarding quality aspects, for the ethnic-specific subscale (non-Dutch patients only) the cultural background was most important, whereas for the process subscale language proficiency were most important. Regarding the separate questions: for the process subscale (Dutch and non-Dutch patients) questions about communication were important and patients with poor language proficiency perceived the poorest quality. Patients with a modern background perceived the poorest ethnic-specific quality.

Discussion

For the physician-patient interaction aspects of communication are most important, but the patient's cultural background in this interaction should not be neglected, irrespective of how integrated patients may appear. Thus, cultural background should receive more attention in medical education and professional training.

Introduction

Patients' perspective is increasingly regarded as an important outcome of the quality of care [1, 2].

Due to worldwide migration physicians nowadays encounter more patients from different ethnic origins and cultural backgrounds. For healthcare this implicates not only more variation in presented health complaints and diseases, but also differences in needs and expectations [3]. Besides differences in healthcare systems [4], differences in the cultural background of patients will influence expectations [1]. Because the physician's patient centeredness is important for patient's satisfaction [5, 6], encouragement of the expression of patient's views, concerns and expectations and shared decision-making are important predictors for patient's satisfaction and compliance [7, 8]. Moreover, because views and expectations differ between cultures and thus the expression of them in the consultation, nothing can be taken for granted in intercultural encounters [9-11]. Patients with an ethnic origin and/or cultural background different from their GP less often appreciate the received care [12, 13], mainly because of communication problems [14]. Since the patient's perspective is important, it is necessary to know what patients with a culturally different background expect from their physician.

The main features of ethnic minority patients in Western society today are that they are relatively young, low educated, have a low socio-economic status and poor language proficiency [15].

This study investigates whether differences in cultural background between patients explain patient's perceived satisfaction and quality of care, taking into account age, language proficiency, education and socio-economic status.

Secondly, if so, which aspects of perceived quality of care determine these differences.

Methods

We used data collected within the framework of a randomised intervention trial*, in which patients of 38 general practices with a multiethnic population, in Rotterdam were asked to participate. All patients (Dutch and non-Dutch) visiting their GP on the days of measurements in February, May and November 2000 were invited to participate.

Since the intervention could influence the perceived quality of care, in this study we only used data of those patients who were not exposed to the intervention. All patients, regardless of their ethnic origin, were interviewed at home in their preferred language 3-8 days after a GP consultation. The interview contained questions about the GP and consultation satisfaction, quality of care and their background characteristics

Satisfaction about the GP. Patients were asked to rate the satisfaction about their physician in general on a scale ranging from one (very dissatisfied) to 10 (very satisfied).

Satisfaction about the consultation was explored in two questions with three categories (yes / doubtful and no) 'satisfaction about the specific consultation' and 'whether they were given due consideration by the GP' during the consultation.

Perceived quality of care was assessed using a validated questionnaire for ethnic minority groups in the Netherlands: the Quote-mi [16-18].

Two subscales of the Quote-mi were used: the process subscale, dealing with the physician-patient contact, and the ethnic-specific subscale, dealing with ethnic-specific items. The ethnic-specific questions were only given to non-Dutch patients. Questions on the Quote-mi were answered using a four-point scale (low to high perceived quality). For both subscales we used z-scores of category means to construct a 10-point scale [19]; a higher score means higher perceived quality of care.

Patient characteristics

The patient characteristics explored were: self-perceived Dutch language proficiency (good versus moderate and poor), age (in years), income, education and (own and parental) country of birth. Income and education were asked in categories and age was split into ranges. Assessment of the country of origin was done by own and parental country of birth [20] and divided into a Western and non-Western group by considering patients from European countries, USA, Canada, Australia and New

* Rotterdam Intercultural Communication In Medical setting Study: RICIM Study.

Zealand to have a ‘Western’ background, and all other patients to have a ‘non-Western’ background.
Answers to the questions on the assessed Patient’s Cultural Background (PCB) scale [21] measure the traditionalism of patient’s views; a higher score indicates more modern views, a lower score more traditional views.

Statistical analysis

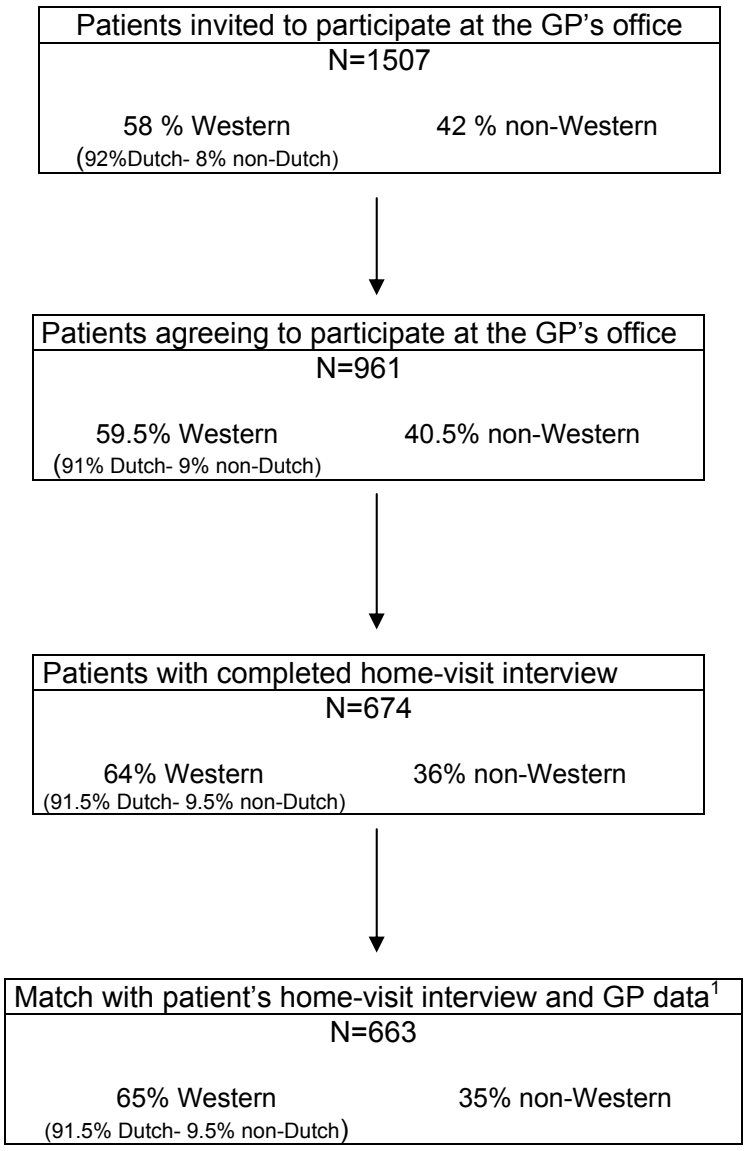
To answer our first research question: firstly scores on quality aspects and the percentages satisfaction are calculated for the different background characteristics (age, income, education, language proficiency and cultural background). The relationship between dichotomous outcomes (‘satisfaction’ and ‘consideration’) and background characteristics was tested with multilevel analysis for binary outcomes (GEE analysis) and the relationship between continuous outcomes (GP-mark and Quote subscales) and background characteristics with multilevel linear regression analysis (SAS proc mixed). Secondly, we assessed the independent relationships between patients’ background characteristics and perceived quality of care and satisfaction using a multivariate model. Only those background characteristics that were significant in the univariate models were included.

To determine which aspects of the ethnic-specific subscale and process subscale mainly explained the differences in perceived quality, we assessed the relation between each dichotomised question (quality, yes or no) of the two subscales with those patient characteristics which contributed significantly to the multivariate model. The relation is assessed as a percentage of poor perceived quality per background characteristic concerned, and as a fraction of the reference category.

Results

A total of 1507 patients were invited to participate and 961 agreed. Because of missing patient data (mainly due to failed home-interview) the study group finally consisted of 663 consultations. The response at different levels of participation is given in Figure 1. More Western than non-Western patients participated.

Fig. 1 flow-chart of response levels



N Number of patients

1 We used data from an intervention study that consisted of patient and physician data, and that only used data which matched between physician and patient.

Table 1 shows the relation between quality and satisfaction aspects and patient characteristics. The response for the ethnic-specific subscale (non-Dutch patients only) was182. The mean value for the ethnic-specific subscale was the lowest score (6.9 versus 8.7 for the process subscale). Both of the subscales and all satisfaction measurements scored had higher scores among Western patients, except for the ethnic-specific subscale (Western 6.87 versus non-Western 6.90). The mean score for general satisfaction with the GP, was relatively high (7.9).

Table 1 Relationship between quality aspects en patient characteristics

		Satisfaction aspects				Quality aspects (Quote-Mi)			
Patient characteristics	N	***Consultation satisfaction*** (no versus doubfull/yes) (N=660) % satisfaction-yes	***Felt taken into consideration*** (no versus doubfull/yes) (N=640) % consideration-yes	***Mean GP Mark*** (N=656) Mean	SD	***Mean score ethic-specific subscale***[1] (N=182) Mean	SD	***Mean score process subscale*** (N=649) Mean	SD
Ethnicity	649								
Western		88	89	7.99	1.23	6.87	1.97	8.96	1.57
Non-western		78	76	7.66	2.02	6.90	2.11	8.20	1.99
Age	645								
0-12		75	75	8.25	2.36	7.19	3.30	8.31	2.96
18-30		77	81	7.55	1.50	6.68	2.35	8.35	1.85
30-50		84	82.5	7.77	1.62	6.92	2.00	8.59	1.86
50-65		85	86	8.06	1.62	7.50	1.74	8.82	1.77
>65		91	90	8.20	1.29	6.16	2.22	9.08	1.33
Language proficiency[1]	603								
Good		86	88	7.91	1.31	6.75	2.48	8.89	1.57
Moderate		79	79	7.96	1.83	7.01	1.96	8.28	1.92
Poor		76	61	7.27	2.65	6.94	1.69	7.32	2.93
PCB scale score[2]	605								
Traditional		80	62	7.68	2.44	7.19	1.71	8.06	1.93
Partly traditional/modern		80	83	7.91	1.61	7.00	2.04	8.64	1.81
Modern		89	91	7.86	1.24	5.72	2.65	8.93	1.53
All patients	663	84	84	7.88	1.6	6.9	2.1	8.7	1.8

1: only non-Dutch patients 2: Patient's Cultural Background scale score

N=number of consultation

Table 2 shows that all patient characteristics are significantly related with satisfaction aspects except for patient's cultural background and the mean score for satisfaction with the GP. Of the two Quote measurements of quality, the process subscale showed significant relationships with all patient characteristics, the ethnic-specific subscale only with the patient's cultural background.

Table 2 Importance of patient characteristics for outcome measures. Results of univariate multilevel regression analyses.

		Satisfaction aspects						Quality aspects			
		Satisfaction		***Felt taken into consideration***		***Mean Satisfaction with the GP***		***Mean score ethnic specific subscale[1]***		***Mean score process subscale***	
Patient characteristics	N	**β**	***p-value***	**β**	***p-value***	**β**	***p-value***	**β**	***p-value***	**β**	***p-value***
Ethnicity	649										
Western		0.709	**0.000**	0.941	**0.000**	0.305	**0.016**	-0.042	0.938	0.743	**0.000**
Non-Western		0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA
Age *(years)*	645		***0.003***[3]		***0.004***[3]		***0.000***[3]		*0.504*[3]		***0.003***[3]
0-12		-1.186	0.330	-0.997	0.391	0.098	0.898	1.022	0.551	-0.783	0.372
18-30		-1.082	**0.011**	-0.716	0.071	-0.604	**0.002**	0.0538	0.552	-0.681	**0.003**
30-50		-0.617	0.095	-0.612	0.105	-0.381	**0.023**	0.789	0.372	-0.426	**0.027**
50-65		-0.584	0.166	-0.331	0.410	-0.082	0.657	1.371	0.151	-0.210	0.325
>65		0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA
Language proficiency[1]	603										
poor		-0.722	**0.009**	-1.554	**0.000**	-0.494	**0.029**	0.170	0.680	-1.548	**0.000**
moderate		-0.501	**0.050**	0.693	**0.006**	0.095	0.571	0.266	0.461	-0.550	**0.003**
good		0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA
PCB-scale score[2]	605		***0.001***[3]		***0.0000***[3]		*0.822*[3]		***0.023***[3]		***0.001***[3]
Traditional		-0.700	0.081	-1.968	**0.000**	-0.450	0.100	1.239	**0.027**	-0.990	**0.001**
Partly traditional/modern		-0.523	**0.003**	-0.630	**0.025**	0.143	0.258	0.881	**0.044**	-0.310	**0.029**
Modern		0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA

1: Only non-Dutch patients 2: Patient's cultural background 3: *Test for linear trend* NA: Not applicable
significant

The multivariate regression analysis (Table 3) shows that the satisfaction aspects have a significant relationship with age and patient's cultural background, and that language proficiency was the most important predictor for the process subscale, whereas the patient's cultural background was the most important predictor for the ethnic-specific subscale.

In the multivariate regression income and education had no significant effect on quality and satisfaction aspects.

Table 3 Relative importance of patient characteristics for satisfaction and quality aspects. Results of multivariate multilevel regression analyses, adjusted for income and education

		Satisfaction aspects						Quality aspects			
		Satisfaction		*Felt taken into consideration*		*Mean GP satisfaction mark*		*Mean score ethic-specific subscale*[1]		*Mean score process subscale*	
Patient characteristics	N	β	*p-value*	β	*p-value*	β	*p-value*	β	*p-value*	β	*p-value*
Ethnicity	649										
Western		0.366	0.171	0.181	0.505	0.109	0.557			0.287	0.198
Non-western		0.0000	NA	0.0000	NA	0.0000	NA			0.0000	NA
Age *(years)*	645		***0.022***[3]		***0.042***[3]		***0.039***[3]				*0.095*[3]
0-12		-2.301	0.068	-1.782	0.112	-0.276	0.757				
18-30		-1.078	**0.025**	-0.638	0.179	-0.511	**0.019**				
30-50		-0.541	0.231	-0.400	0.404	-0.301	0.102				
50-65		-0.561	0.234	-0.297	0.534	-0.069	0.728				
>65		0.0000	NA	0.0000	NA	0.0000	NA			0.0000	NA
Language proficiency[1]	603										
poor		-0.443	0.135	-0.792	0.116	-0.490	0.122			-1.473	**0.000**
moderate		-0.069	0.774	-0.131	0.656	0.177	0.378			-0.347	0.149
good		0.0000	NA	0.0000	NA	0.0000	NA			0.0000	NA
PCB-scale score[2]	***605***		***0.017***[3]		***0.010***[3]		*0.267*[3]		***0.036***[3,4]		*0.271*[3]
Traditional		-0.227	0.610	-1.411	**0.017**	0.093	0.786	1.350	**0.036**[4]	-0.169	0.673
Partly traditional/modern		-0.258	0.175	-0.366	0.270	0.212	0.170	0.930	**0.034**[4]	-0.055	0.774
Modern		0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA	0.0000	NA

1: Only asked to non-Dutch patients 2 :Patient's cultural background 3: *Test for linear trend* 4: Adjusted for education

Significant

NA: not applicable

Table 4 shows the relation between all dichotomised answers to questions on the process subscale with language proficiency, and to all questions of the ethnic-specific subscale with the patient's cultural background.

Of all questions on the process subscale, 'referral to a specialist' and 'clearly explains what is wrong' were respectively 4.97 and 4.91 times more often evaluated with poor quality in the category poor language proficiency compared with good proficiency.

Table 4 Relation between separate dichotomised Quote questions and language proficiency (for process subscale) or Patient Cultural Background Scale (for ethnic-specific subscale). (percentages of poor perceived quality, and fraction of reference category)

	Language proficiency					
Questions	**Poor**		**Moderate**		**Good**	
	% poor	Fraction of % good proficiency	% poor	Fraction of % good proficiency	% poor	Fraction of % good proficiency
Process subscale						
Your GP always:						
Takes enough time to talk	*15.4*	1.77	*19.6*	2.25	*8.7*	1
Takes you seriously	*15.4*	2,61	*7.9*	1,34	*5.9*	1
Keeps his promise	*7.8*	0.71	*13.9*	1.26	*11.0*	1
Is willing to talk about mistakes	*18.4*	2.33	*18.1*	2.29	*7.9*	1
Is willing to talk about your problems	*20.0*	2.94	*17.0*	2.50	*6.8*	1
Clearly explains your medication	*25.0*	2.98	*12.9*	1.54	*8.4*	1
Explains the results of investigations	*13.7*	1.63	*5.1*	0.61	*8.4*	1
Gives opportunity for you to decide about treatment	*36.0*	2.57	*15.8*	1.13	*14.0*	1
Refers to a specialist when asked	*33.3*	4.97	*16.8*	2.51	*6.7*	1
Clearly explains what is wrong	*26.0*	4.91	*10.9*	2.01	*5.3*	1
Explains the type and goal of treatment by himself	*22.4*	1.62	*12.9*	0.93	*13.8*	1
Interprets physical problems into psychological problems.	*30.4*	1.17	*35.4*	1.36	*26.0*	1

	Patient's cultural background scale					
	Traditional		**Partly T/M**		Modern	
	% poor	Fraction of % modern	% poor	Fraction of % modern	% poor	Fraction of % modern
Ethnic-specific subscale						
Your GP always:						
Is prejudiced because you are a foreigner	*22.2*	4.72	*4.4*	0.94	*4.7*	1
Gives you as much time as Dutch patients	*16.0*	1.54	*7.0*	0.67	*10.4*	1
Understands that you are accompanied by an interpreter	*4.2*	0.15	*6.8*	0.24	*28.6*	1
Has consideration that (because of lack of language proficiency) you have difficulty in telling your story	*11.5*	0.58	*11.2*	0.56	*20.0*	1
Understands that you sometimes visit physicians abroad	*18.5*	0.88	*20.0*	0.95	*21.1*	1
Has information booklets in your language	*46.4*	0.61	*55.9*	0.74	*75.9*	1
Calls an interpreter if you wish	*30.8*	0.48	*38.1*	0.60	*63.6*	1
Is interested in your culture	*50.0*	0.92	*54.0*	0.99	*54.3*	1
Understands that your problems are sometimes different from Dutch patients	*8.3*	0.15	*36.0*	0.68	*53.1*	1
Ha good knowledge about medication from abroad.	*54.2*	0.93	*50.0*	0.86	*58.3*	1

Of the other questions, those related to communication (explanation and talking) scored higher (1.6 to 4.9 times) on poor perceived quality in the category poor language proficiency compared with good proficiency. Furthermore, the direction of change in perceived quality over the three categories of language proficiency was consistent.

Regarding the questions on the ethnic-specific subscale, the most modern group of patients perceived the poorest quality of care (7 of the 10 questions). Answers to the questions with the focus on communication gave 1.6-2 times and cultural awareness 1-6.7 times more poor perceived quality in modern patients.

Discussion

Culture and language proficiency are important for the perceived quality of care and satisfaction. For the satisfaction aspects, age and the patient's cultural background are important. These findings are in line with earlier studies, although the cultural background was mostly assessed by means of ethnic origin [22]. In this study we found that cultural background, assessed on the basis of norms and views, is much more important for satisfaction and perceived quality than ethnic origin (Western versus non-Western), income and education [23].

Although often confused, the concept of perceived quality (explored on specific aspects) differs from the more generic satisfaction aspects. We therefore hypothesize that perceived quality is a prerequisite for satisfaction.

Regarding the quality aspects the following remarks should be made: For the general interaction between physician and patient, the patient's language proficiency is the most important predictor. In this respect, especially questions focusing on communication seemed the most important.

For the ethnic specific perceived quality aspects, the cultural background was important. Especially the modern patients perceived less quality on most questions of this subscale.

One explanation for the different findings in the quality subscales might be that the two subscales explored different study groups. The ethnic-specific subscale items were not given to Dutch patients whereas the process-items were asked to all patients and obviously Dutch patients had good language proficiency. In the group of non-Western patients, for their ethic-specific quality aspect, language proficiency was less important, and perhaps this gap is considered manageable during the contact when the focus is on more cultural aspects. It is noteworthy that the 'modern' patients were more aware of neglect of cultural differences and cultural differentiated communication by the physician. Do physicians evaluate these patients as 'modern' and neglect a culturally adapted communication, or are these patients the most demanding regarding this aspect? Nevertheless, differences in patient's cultural background and language proficiency do influence the patient-physician communication and, consequently the patient's perceptions about the quality of care.

Earlier studies indicated that patients appreciated communication, the process of decision-making and the physician's interpersonal style (friendliness, respectfulness, discrimination, cultural sensitivity, support) are the most important in physician-patient contact [24, 25] and that patients experience less problems when the physician has an ethnic origin similar to the patient [13]. In this study the communication items of the process of physician-patient interaction (process subscale) varied most clearly over the categories of Dutch language proficiency and therefore indicates the importance of communication for the perceived quality in relation to language proficiency. Especially in contacts with patients with poor language proficiency, the focus should be on communication.

The scores on the ethnic-specific subscale were the poorest. Apparently patients from other countries of origin experience lack of quality mostly within this field, therefore in physician-patient

contact the focus should be on the patient's ethnic origin and cultural background. Here also, perceived communication aspects and the physicians cultural awareness showed strong variation between the three 'cultural groups'. This indicates that communication and cultural awareness are important for perceived quality in patients with different ethnic origins regardless of their cultural background; thus, focusing on communication in general without cultural awareness is certainly not enough.

Limitations of the study

This quantitative study could not give any insight into how these background characteristics may influence quality and satisfaction aspects. Additional (qualitative) studies, especially on the influence of communication styles and attitudes of physician and patient, should provide more information about this process.

Conclusion

Background characteristics such as age, language proficiency and patient's cultural background are important for satisfaction and perceived quality of medical care. Communication aspects and cultural awareness are important for the perceived quality, especially in consultations with patients with a different ethnic origin. More research is needed to unravel this complex mechanism in order to equalise differences in perceived quality of medical care. In this respect the relation between concepts such as 'satisfaction' and 'perceived quality' should be investigated. This study shows that cultural differences between patients should not be neglected, irrespective how modern or integrated the patient may appear to be. Physicians should be educated to be continuously aware of the cultural background of their patients. Medical education for students and training/ retraining for physicians should help address this problem, because the patient's cultural context is of great importance in the medical encounter and at the same time is too often neglected.

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CHAPTER 8

DOES AN EDUCATIONAL INTERVENTION IN GENERAL PRACTICE DECREASE DIFFERENCES IN QUALITY OF CARE BETWEEN PATIENTS WITH A WESTERN AND A NON-WESTERN CULTURAL BACKGROUND?

Results of an RCT

Submitted

Abstract

Objective

To assess the effectiveness of an educational intervention on intercultural communication aimed to decrease inequalities in care provided between western and non-western patients.

Design

A randomised controlled trial with randomisation on the GP level and outcome measurements on the patient level.

Participants

170 GPs located in the Rotterdam region, with at least 25% inhabitants with a non-western origin, were invited to participate and 38 agreed. 2407 visiting patients were asked to participate.

Intervention

The GPs were educated in the contents of cultural differences and trained in intercultural communication. Patients received a videotaped instruction focusing on how to communicate in a direct way.

Outcome measures

Primary outcome measure was mutual understanding, the secondary outcomes were patient's satisfaction and perceived quality of care. Mutual understanding was assessed by scaling the compared answers to similar questions about the consultation from both physician and patient. Satisfaction was determined by means of two questions and the perceived quality of care by a validated scale (Quote-mi).

The intervention effect was assessed for 1) all patients together, 2) for the 'western' and 'non-western' patients, and 3) for patients with different cultural backgrounds separately.

Results

A total of 986 consultations were finally included. An intervention effect was seen 6 months after the intervention, as improvement in mutual understanding (and some improvement on perceived quality of care) in consultations with 'non-western' patients.

Conclusions

A double intervention on intercultural communication given to both physician and patient decreases the gap in quality of care between 'western' and 'non-western' patients.

Introduction

Worldwide migration induces multicultural contacts in societies, also in healthcare. However, multicultural contacts and communication are often complicated by language barriers and obstructions caused by different culturally defined views and perceptions [1]. Consequently, the physician-patient relationship might also be disturbed [2-4]. According to Kleinman, both physician and patient need to exchange each other's perceptions about patient's illness (each other's 'explanatory models') in order to achieve understanding and agreement about diagnosis and treatment [5]. Lack of understanding and agreement is assumed to lead to less compliance and a reduction in perceived quality of care [1, 2]. Kleinman also argued that 'uncovering and solving discrepancies in explanatory models' between physician and patient is determined by mutual understanding between them, as well as by general feelings such as: patient satisfaction and the patient's feeling to that the physician had been considerate [6-9]. Misunderstanding and patient's dissatisfaction tend to increase when the cultural gap between physician and patient is wider [6, 10, 11].

By improving communication during the consultation 'discrepancy in explanatory models' can be reduced in order to achieve better mutual understanding and consequently better perceived care and patient compliance; this improvement can be achieved by instructions and training in communication by both physician and patient [12, 13].

The aim of this study is to assess the effect of an educational intervention on intercultural communication given to both physician and patient (both western and non-western country of origin) on mutual understanding and perceived quality of care.

The intervention aims to reduce differences in mutual understanding and perceived quality of care in consultations with patients of different native origins.

Participants and methods

A randomised controlled trial on physician-patient communication was performed in which GPs were at randomly divided to an intervention or a control group; the effects of the study were analysed on the patient level. Measurements took place at baseline, and within one month and six months after the GP intervention. At the three measurement times the same GP was involved, whereas the patients differed all the time. Only those GPs and patients in the intervention group received the intervention.

GPs with a practice population of at least 25% patients with a non-western country of origin were invited to participate, by letter and by one repeat request by telephone. Inclusion criteria for the patients were a visit to their GP for a consultation on random days in February, May and November 2000 (in which months each general practice was visited once for measurement); we excluded adolescents aged 12 and 17 years because of expected problems in an interview due to the nature of the questions.

To estimate the sample size we considered our main outcome parameter, mutual understanding as a dichotomous variable. Assuming a power of 80%, a significance level of 5%, a fraction of 0.5 mutual understanding in the control group, an absolute treatment effect of 0.2, taking the multilevel design into account and assuming an intra-cluster correlation of 0.2 and 20 patients per physician, 748 patients (corresponding with 38 physicians) are required for each measurement [14].

Intervention

Patient intervention

This consisted of a 12-minute videotaped instruction in the waiting room for all patients immediately before the consultation, with a voice-over in their preferred language (Moroccan-Arabic, Moroccan-Berber, Turkish and Dutch). The main message was to instruct patients to communicate directly and to express freely any misunderstanding and disagreement. Two examples (one with unsatisfactory and indirect communication and one with satisfactory and direct communication of the patient) were used to illustrate the main message of the videotape.

GP intervention

This consisted of a 2.5-day training on intercultural communication for the GPs based on Pinto's 'three step method' [15]. Firstly, the GPs were allowed to reflect on their own culturally-defined norms, views and communication style, secondly we aimed to improve sensitivity and knowledge about culturally-determined differences in views and behaviour (including communication style) mainly in patients originating from non-western countries, and thirdly to train (self chosen) strategies to solve the gaps in views and culturally-defined communication style. Two weeks later (in a final training session) experienced problems were discussed and supplementary advice was given.

Measures

Data were collected by means of a GP questionnaire completed immediately after the consultation, and by means of patient interviews at home 3-8 days after the consultation. The GP questionnaire and the patient's home interview contained similar questions on the presented health complaint, own and the other's ideas about the cause of the health complaint and diagnosis, and on the proposed treatment or medical investigations.

To assess our primary outcome, mutual understanding between GP and patient, answers from the GP and patient about different aspects of the consultation were compared and scaled [16]. The response to could range from –1 (total misunderstanding) to +1 (complete mutual understanding).

Secondary outcomes were: 1) patient's satisfaction with the consultation, 2) patient's feeling that the physician had been considerate. Both these items were explored in the home interview with three answering categories (yes / doubtful / no) and answers were dichotomised (yes versus doubtful and no), 3) quality of care; measured by the validated questions of Quote-Mi (quality of care trough patient's eyes) [17, 18]. Response to the Quote-Mi ranged from 1 (perceived poor quality) to 10 (perceived good quality).

Country of origin was based on own and parental country of birth: respondents were divided into a 'Western' (West European, North American, Canadian and Australian origin) and a 'non-Western group' [19].

Cultural background was assessed through the patient's score on the Patient Cultural Background-scale, which is based on culturally-defined norms and values (asked in the home interview) [20].

Analysis

The effect on mutual understanding and perceived quality of care was computed using multilevel multiple regression techniques adjusted for baseline values. Analyses were performed for all patients together and, because the focus of the intervention was on intercultural communication, sub-analyses were made for western and non-western patients and for patients with a different cultural background (traditional, partly traditional/modern and modern).

For 'satisfaction' and 'feeling that the GP had been considerate' we analysed on the physician level and computed per physician and per measurement the fraction of patients that was satisfied with ('feeling that the GP had been considerate' during) the consultation. Differences between the two patient groups were tested by means of regression analysis with adjustment for baseline fraction, weighing cases (physicians) with the total number of patients seen at baseline plus at the measurement concerned.

Results

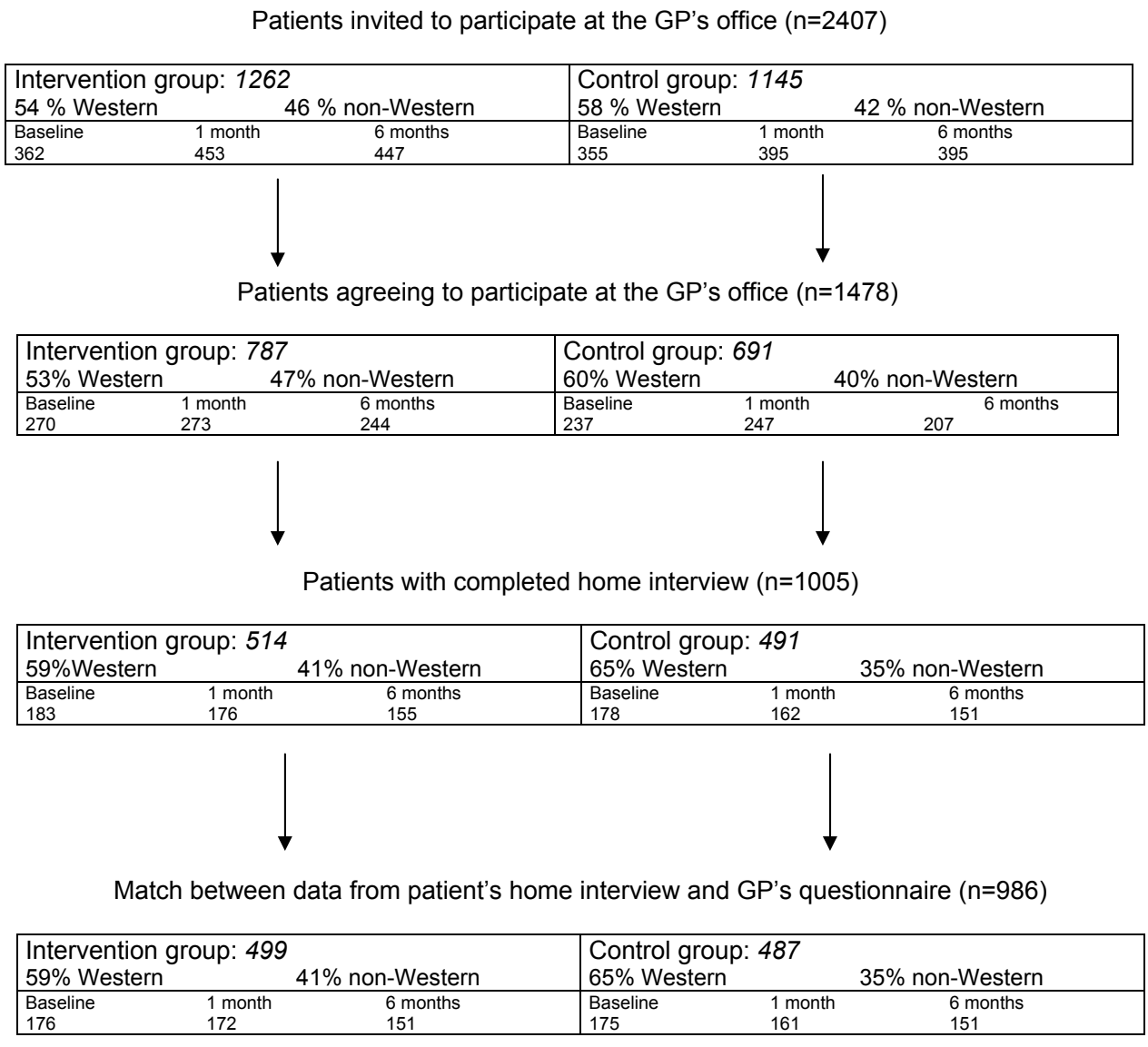
Participants

170 GPs received a letter of invitation of which 13 spontaneously enrolled, the remaining GPs were subsequently invited to participate by telephone. This telephonic recruitment was stopped after calling 120 GPs, because we had reached the maximum number of 38 GPs.

In the intervention group all 19 GPs participated in the three measurements.

In the control group one GP dropped out in the second measurement due to illness, and another in the third measurement due to cessation of the medical practice. Figure 1 shows the phases of data collection and the responses in each phase during the three measurement periods. The total net response of patients was 40% in the intervention group and 43% in the control group.

<u>Fig. 1</u> Flowchart of the levels of response of the patient population.



Patients with a non-western country of origin more often refused to participate; non-response was particularly high in the home interview phase (see Fig. 1).

Our study group consisted of 986 consultations for which a match could be made between patient and GP data. We could not attain the 2280 consultations calculated to be needed, mainly because of the high non-response at the home interview.

Effect of the intervention

For the total patient population at 1 and 6 months no differences were found between the intervention and control group in primary and secondary outcomes, or for the western patients alone (see Table1). For the non-western patients, 6 months after the intervention there was an 11% improvement ($p<0.05$) in mutual understanding and a 5% improvement ($p=0.05$) in the perceived quality of care; satisfaction and the feeling that the GP had been considerate also showed effect in the desired direction. More detailed study of the patient's cultural background in the non-western group showed that the partly traditional/modern group accounted for most of the effect on mutual understanding after six months (19% improvement, $p< 0.01$).

Table 1 Intervention effect on primary and secondary outcomes with multilevel regression techniques one month and after six months after, intervention.

All patients	One month			Six months		
		$\Delta_{(I-C)}$ [1]			$\Delta_{(I-C)}$ [1]	
	ß	% of range[2]	p-value	ß	% of rang[2]	p-value
Primary outcome						
Mutual understanding	-0.06	↓ 3	0.24	+0.01	↑ 0.5	0.83
Secondary outcomes						
Patient's perception of quality of care[2]	-0.31	↓ 3	0.17	+0.02	↑ 0.2	0.94
Patient's satisfaction with the consultation [2,3]		↓ 0.03	0.56		↑ 0.03	0.49
Patient's feeling that consideration was shown[2,3]		↓ 0.01	0.91		↓ 0.01	0.80

Western and non-Western	One month			Six months		
		$\Delta_{(I-C)}$ [1]			**$\Delta_{(I-C)}$** [1]	
Western patients	ß	% of range[2]	p-value	ß	% of range[2]	p-value
Primary outcome						
Mutual understanding	-0.04	↓ 2	0.58	-0.06	↓ 3	0.40
Secondary outcomes						
Patient's perception of quality of care[2]	-0.22	↓ 2	0.38	-0.25	↓ 2.5	0.34
Patient's satisfaction with the consultation [2,3]		↓ 0.06	0.39		↑ 0.02	0.69
Patient's feeling that consideration was shown[2,3]		↓ 0.08	0.26		↑ 0.02	0.67
Non-Western patients	ß	% of range[2]	p-value	ß	% of range[2]	p-value
Primary outcome						
Mutual understanding	-0.08	↓ 4	0.33	+0.21	↑ 11	**0.049***
Secondary outcomes						
Patient's perception of quality of care[2]	-0.40	↓ 4	0.27	+0.74	↑ 7	0.053
Patient's satisfaction with the consultation [2,3]		↑ 0.03	0.71		↑ 0.14	0.11
Patient's feeling that consideration was shown[2,3]		↓ 0.03	0.71		↑ 0.12	0.15

1 Difference between intervention and control group adjusted for baseline measured direct after and six months after the intervention.

2 Size of the effect: ↓ decreased % of range / ↑ increased % of range of measure.

3 We computed per physician and per measurement the fraction of patients that were satisfied with ('felt GP had been considerate' during) the consultation .
The difference between the two groups was tested by means of regression analysis with adjustment for baseline fraction, weighing cases (physicians) with the total number of patients seen at baseline plus at the measurement concerned.

*** significant effect**

Discussion

Our intervention on intercultural communication for both GP and patient was effective in the non-western patient group, which supports our aim to decrease differences in outcomes of care between western and non-western patients. The effect was almost completely explained by improvement within the group of the partly traditional/modern patients. We observed no effect when considering the total study population or in the western patients alone. The observed effect after six months is in line with Kleinman's theory, the larger the cultural distance between physician and patient the greater the misunderstanding [5]. However, detailed analysis of our study and results from an earlier study showed that partly traditional/modern patients had the most misunderstanding with their physician [21]. Thus for the traditional group other mechanisms such as satisfaction and the 'feeling that physician was considerate' may be more important for mutual understanding. The success of physician's retraining is often regarded as minimal [22, 23] and little is known about providing videotaped instruction to patients, especially non-western patients [24]. Therefore, it is noteworthy and promising that we demonstrated an effect in the targeted group of non-western patients; these results also support those who do claim a positive effect of retraining for physicians [25, 26].

We can only hypothesize why the effect was minimal within 1 month after the intervention and became more apparent after 6 months. It may be that changing one's personal approach, attitude and communication style in a very short time is difficult. It is unknown whether one intervention is sufficient to achieve consistent changes. In advertising, for example, the phenomenon of redundancy is widely employed and therefore retraining of physicians and instruction of patients needs to be given continuously. In our opinion, these results may provide an argument for more culturally centred communication training in the education of medical students and vocational training of GPs.

We chose a double intervention, patient and physician, because in our opinion both parties are responsible for an adequate communication in medical encounters and this approach conforms with Pinto's three-step method and Kleinman's theory of exchanging explanatory models [5, 15]. To assess whether an intervention on both sides is more effective than a single sided intervention and which elements of the intervention are most effective, more studies are needed.

Despite a change in the perceived quality of care, more generic measures such as 'feeling that the GP had been considerate' and 'consultation satisfaction' did not change. A speculative explanation for this result is that for generic measures more time is needed [27].

Limitations of the study

Because the GP population consisted of highly motivated physicians the results cannot be generalised. Because of differences in response between western and non-western patients (in

both the intervention and control group) and because the focus of our intervention was on patients with a more traditional cultural background we expect this finding negatively influenced our results due to loss of power, all the more because we could not include the planned number of patients. On the other hand, because we analysed our data with mutual understanding as continuous variable, the estimates in the power calculation were conservative (e.g. an overestimate of the number of patients needed).

Conclusion

A double intervention on intercultural communication shows improvement of mutual understanding between physician and patient in consultations with ‘non-western’ patients and thus decreases differences in outcomes of care. This finding should encourage more efforts regarding intercultural communication for medical students and physicians. Patients should presumably also continuously be invited to communicate in a way that is expected by and helpful to the physician. However, further research is needed on the impact of interventions on changes in communication to gain more insight into the process of improving intercultural communication.

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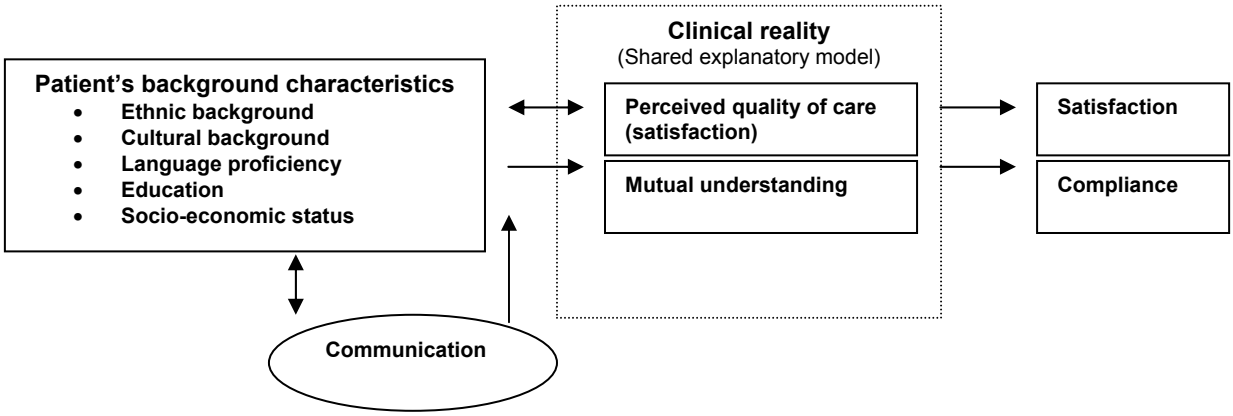
CHAPTER 9
GENERAL DISCUSSION

The *main outcome* of the work presented in this thesis is that the patient's cultural background is a very important patient characteristic, because it has consequences for mutual understanding, communication and perceived quality of care. Mutual understanding proved to be the best predictor for medical compliance and can be improved by an adequate exchange of views between physician and patient; moreover, this adequate exchange of views can be instructed and learned.
The diagram below presents the vision on relationships between the different patient characteristics, consultation outcomes and communication.

Model for intercultural patient-physician communication and consultation outcomes.



This model is slightly different from that presented in the Introduction, because in my opinion it is doubtful whether the patient's satisfaction in general is a substantial aspect of a shared explanatory model. In my view this generic feeling is more likely an outcome measure of the patient's perception of a good exchange of views and cultural awareness of the physician.

Kleinman argued that patient and physician should exchange explanatory models about the presented health complaint or disease. This should lead to uncovering on discrepant views on the clinical reality and understanding about each other's explanatory models, and finally lead to a mutually accepted explanatory model [1]. But Kleinman's approach of negotiation about a shared model with the patient is often problematic and is a typical 'Western' approach. Questioning and exploring the patient's expectations, feelings and opinions about their health complaint is not a common procedure for ethnic minority patients. The patient sometimes expects the physician to totally understand their problem beforehand (without explanation) and to automatically get an adequate therapy. The physician is often regarded as the expert on somatic matters and not as the appropriate person with whom to discuss psycho-social matters. The cultural reality also defines the expectations about the physician's approach and communication style, and this may complicate general and simple solutions.

In our opinion exchange of thoughts, opinions and expectations should always take place, but a shared solution is not always possible. Nevertheless, this should also be discussed between patient and physician with mutual respect, and the possibility of an unbridgeable result should be made clear to both of them.

In my opinion mutual understanding between patient and physician, and consequently clarity about each other's views, is more important in the process of exchanging explanatory models than the final goal of reaching a shared explanatory model.

In our study, mutual understanding did not imply concordance about a shared model between physician and patient but it certainly did measure clarity about each other's views and opinions on both sides. This appeared sufficient for an important and significant improvement of mutual understanding. In this respect the unreachable should not be sought, but the key words are mutual respect and clarity about each other's opinions and expectations.

Cultural differences and medical education

One important statement made by Kleinman has not changed since 1978 [2]: i.e. more attention should be paid to cultural differences in medical education, professional training and retraining (postgraduate training). It is hard to imagine that in spite of the increased migration to the 'Western world' very little has changed over the last 25 years in medical education, training and retraining. The importance of and knowledge about the patient's cultural background should be taught continuously as the most important aspect of the patient's context. Only when this 'cultural context' of the patient is understood can misapprehension and irritation be replaced by understanding and appreciation. Misunderstanding a patient's cultural background can be as frustrating as overlooking a diagnosis. Therefore, knowledge about the content of cultural differences can provide the physician more satisfaction and pleasure in contacts with patients with a different cultural background and create an open mind towards these patients. Because it can maintain or restore mutual respect between physician and patient, physicians need to recognize the patient's cultural background and adapt their communication style accordingly. In this respect, the patient's responsibility should also not be forgotten; he (or she) should be taught that the communication style and expectations towards medicine are different in the 'Western world'. Only then is both the patient's and physician's autonomy taken into consideration, which is necessary in good consultations.

Theories on cultural differences

There are various theories on cultural differences, but the discussion continues as to whether more dimensions play a role in the structure of cultures. Hall and Triandis consider the dimension individualism-collectivism to be the main dimension [3, 4], Pinto speaks of a cultural structure above all dimensions, and this structure of density of manners, regulations and codes

influences all dimensions [5]. The more course-meshed the structure of rules and regulations, the more modern the culture. Phinney and Hofstede consider differences between cultures as multidimensional [6-8]. In our construction of the Patient's Cultural Background scale we found strong arguments for Pinto's theory of a cultural structure [9]. But in my opinion the density of social regulations and codes does not explain all differences; there is a difference between the more patriarchal cultures (e.g. Turkey and Morocco) and matriarchal cultures (e.g. Surinam and Dutch Antilles). There is certainly a difference in family structure and codes towards women, which is not congruent with the direction of Pinto's cultural structure.
Therefore, besides differentiation into a course and fine-meshed structure of regulations and codes, a division should also be made in feminine and masculine cultures.
However, to a certain extent the discussion on cultural structure and dimensions is an academic one. For the medical practitioner, and especially for GPs, with their brief and frequent contacts with patients, the cultural context should be recognized in a short time. It is known that an experienced GP can estimate or recognize the patient's context relatively quickly, often in the first minutes of the consultation [10]. Because Pinto's model is very useful in explaining the main differences between cultures and gives clear insight about controversies in views and opinions and in differences of communication style, it is useful for most medical practitioners (especially for general practice).

Three-step method and other interventions

Pinto's three-step method for bridging cultural gaps shows great conformity with Kleinman's theory of exchanging explanatory models, it explains the necessity of exchanging views but is open to bridgeable solutions. If concordance cannot be reached, for which both parties are equally responsible, this should be taboo-free and clear. This method proved to be effective in gaining insight in cultural differences and in changing attitude, which left a lasting impression over a longer period, and was also successful in areas other than healthcare [11]. In our study, in a primary care setting, it was effective in achieving better mutual understanding in consultations with non-Western patients [12]. The key points of this three-step method are: 1) to reflect on one's own explanatory model and one's personal limits in the contact (i.e. how far one chooses to go); 2) gain information about the patient's explanatory model, views, wishes and personal limits; and 3) come to a joint decision or not, but in the latter case with clarity about not reaching concordance. It is essential is that this three-step method is performed in an atmosphere of mutual respect and that it starts with reflecting on one's own limits within the contact; only then can space be made for another person's view. This practical method should be used in medical education, professional training and retraining.

More interventions on both physician and patient side, or with mediators, should be tried and evaluated in order to decrease the gap in communication and quality of care for patients

with different ethnic or cultural backgrounds. In my view more interventions on the patient level should be performed; a short (ca 10 min) videotaped instruction on communication is a minimal intervention. Using the obligatory integration and language courses, the communication style of Western society should be explained as well as the way the healthcare system functions: what can be expected from the physician and what the physician can expect from the patient. The expectation that the physician can almost automatically diagnose the cause and severity of the health complaint and heal the patient single-handed must be demystified. Patients should be encouraged to more freely express their wishes or lack of understanding and the use of migrant link workers should be encouraged, especially for patients with poor language proficiency and with chronic or complicated diseases. In addition, the relation between health complaints and psycho-social stress or lifestyle should be explained as well as pointing out that in 'Western medicine' it is customary to discuss this with a physician. Only then can we take the patient's clinical reality seriously and accept responsibility for the process of intercultural communication.

Implications and future needs

It is well known that the workload is higher for general practitioners with large numbers of ethnic minority patients because of different ways of communication, different demands and a higher frequency of patient consultations [13, 14]. Reduction of list size and the availability of practice nurses and migrant link workers is necessary.

With an aging population and the certain knowledge that once most ethnic minority patients will remain in the Netherlands, the workload for primary and secondary care will increase dramatically [15]. Healthcare organizations, politicians and the association of healthcare insurances should prepare for these developments, but with the current shortage of healthcare professionals the future does not seem promising. In my opinion priority should be given to the employment of practice nurses and migrant link workers, both in and outside of office hours; this is necessary because of increasing requests for care outside 'normal' hours. Nevertheless, in the coming years training and retraining of physicians, and instruction of patients about their joint communication efforts is necessary for effective and efficient healthcare in a multicultural practice setting. Brief but frequent medical consultations - common practice in patients from ethnic minorities - without mutual understanding are senseless events for both physician and patient. For this reason, intercultural communication should be introduced as an important and integral part of medical and paramedical training.

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CHAPTER 10

Summary & Samenvatting

Summary

The profession of GPs in major West European cities has been strongly influenced by the strong alteration of the practice population during the last decades. Large groups of patients, with various ethnic and cultural backgrounds, settled in the old city neighborhoods. Patients experienced medical care provided in an unfamiliar way and physicians were confronted with different and unfamiliar requests for help. This influenced the contact between patient and physician: patients with a non-Western ethnic background were more often dissatisfied about the relationship with their physician and on the other hand physicians often experienced the patient's reason for encounter as incomprehensible or even irrelevant. Communication was difficult because of language barriers and differences in (culturally defined) communication style.

Kleinman, an American anthropologist and psychiatrist, indicated the necessity for the exchange of explanatory models about illness and health between physician and patient in order to reach agreement about a joint medical strategy or treatment. Understanding of each other's opinions is a prerequisite to realize this joint strategy.

This study investigates: 1) the relation between the patient's ethnic and cultural background and other background characteristics on the one hand and, on the other hand, mutual understanding between physician and patient, patient's satisfaction and experienced quality of care. 2) The relation between patient's characteristics (including ethnic and cultural background), mutual understanding between patient and physician, patient compliance and differences in communication. 3) The effect of an intervention on intercultural communication (given to both physician and patient) on mutual understanding between physician and patient, patient's satisfaction and perceived quality of care.

Chapters 2 through 4 discuss studies performed within the framework of two pilot studies. The first pilot (66 consultations: 1996) investigated differences in communication between consultations with patients with various ethnic or cultural backgrounds, and whether there was a relation between these differences in communication and differences in duration of consultation or in the prescription of medication. The second pilot (87 consultations: 1998) was performed to investigate the relation between the patient's ethnic and cultural background, mutual understanding between patient and physician and patient compliance on one hand and, on the other hand, to test the feasibility of an randomized controlled trial on improvement of intercultural communication during the consultation. Both pilot studies were bases on consultations with child patients visiting the GP together with at least one parent.

In chapter 2, we assess mutual understanding between physician and parent, based on a study of 87 consultations (pilot 2) with child patients of whom 48 had a non-Dutch ethnic background. The study resulted in a comparison of answers to questions about the medical

problem and the consultation, which both the parent and the physician were asked afterwards. Three experts independently divided the answers to these questions into three categories (good, doubtful or poor mutual understanding) and the final decision about 'mutual understanding between physician and parent during the consultation' was assessed in a consensus meeting. Poor mutual understanding appeared more often in consultations with patients with a non-Dutch ethnic background than in consultations with patients with a Dutch ethnic background (respectively 33% and 13%). Consultations with parents who described their relationship with the physician as problematical were significantly more often classified as showing poor mutual understanding. Consultations with poor mutual understanding resulted significantly more often in non-compliance of patients. We conclude that a good relationship between physician and parent and good mutual understanding between the two are prerequisites for patient compliance, but also that in consultations with patients with a non-Dutch ethnic background mutual understanding and as a consequence patient compliance are on average more often poor than in consultations with Dutch patients.

In chapter 3 the same study shows that consultations with patients whose parents lived between two cultures (in the physician's perception) i.e. partly according the traditional culture of their country of origin and partly according to the modern culture of Western society, more often resulted in poor mutual understanding and, as a consequence, non-compliance. In consultations with traditional non-Dutch parents (living to their traditional culture) mutual understanding was as good as in consultations with Dutch parents or with 'modern non-Dutch' parents (living according to western culture in the physician's point of view). Consequently the poorer score of the group of parents with a partly traditional partly Western lifestyle mainly explains the higher percentage of poor mutual understanding in consultations with non-Dutch patients.

Differences in communication between GP and parents who visited the practice with their sick child are investigated in chapter 4 (pilot 1), in a descriptive study of 66 consultations (32 Dutch and 34 non-Dutch patients). All statements of parent and physician were scored from videotape according to the RIAS method. This method divides all statements of physician and patient into two main categories: instrumental and affective statements, which are divided into subcategories. Duration of the consultation was measured from videotape and it was also assessed whether medication had been prescribed. In contrast to earlier research, the average duration of the consultation with the non-Dutch patients was longer than with the Dutch patients (respectively 13 and 10 minutes). Medication was more often prescribed in consultations with non-Dutch patients than in consultations with Dutch patients (respectively 71% and 50%). The physician made more empathetic statements and talked more often about lifestyle with the non-Dutch parents. Differences in communication did not influence the duration of the consultation but did, although not significantly, influence prescription. The difference in prescription of

medication between consultations with non-Dutch and Dutch patients, partly explained by differences in presented morbidity, increased after adjustment for the number of empathetic statements. Maybe the physician made more empathetic statements in order to reduce prescription.

The pilot studies raised the question whether found differences in consultation outcomes, in consultations with patients with a different ethnic or cultural background, could be decreased by means of an intervention.

The chapters 5 through 8 discuss the studies performed in the framework of the RICIM study*, an intervention study, a randomized controlled trial, performed in 2000. 178 GPs in deprived neighborhoods in Rotterdam were invited to participate and 38 agreed. The GPs were at random divided into an intervention group and a control group. After the first measurement (baseline measurement) we performed the GP-intervention, a postgraduate course aimed at increasing knowledge about cultural differences and a training in intercultural communication. The patient intervention, a videotaped instruction before the consultation with the message to communicate in a direct (Western) way, was given to all patients of the GPs in the intervention group in the second and third measurement. With this double intervention we intended to improve mutual understanding between the physician and patients with a non-Western ethnic or cultural background, as well as patient satisfaction and perceived quality of care. The effect was assessed directly after the intervention in the second measurement and in a third measurement 6 months after the GP-intervention. Each measurement consisted of a questionnaire for the GP and an interview of the patient at home. The interview and questionnaire consisted of questions about the consultation and background characteristics. For these three measurements a total of 2407 patients of 38 physicians were invited to participate. Out of a total of 986 consultations patient and physician data could be matched. Measurement 1 consisted of 176 consultations in the intervention group and 175 in the control group, measurement 2 consisted of 172 consultations in the intervention group and 161 in the control group and measurement 3 of 151 consultations in both groups: 44% of the patients had a non-Dutch ethnic background.

To assess mutual understanding, influenced by the intervention, more objectively, it was necessary to construct a scale. Chapter 5 describes the construction and validation of the 'Mutual Understanding Scale' (MUS). Mutual understanding between patient and physician was assessed by comparing their answers to questions about the consultation. The questions asked to assess mutual understanding covered different consultation aspects: S (presentation of health complaint), C (cause of the health complaint), O (medical inquiry, physical examination), A (diagnosis) and P (treatment). Open questions were used to assess C-S-A, O and P were assessed

* Rotterdam Intercultural Communication In Medical setting study: RICIM Study.

by means of yes/no questions. An panel of 11 experts, conferring according to Nominal Group Technique (NGT), decided on criteria for the open questions (C-S-A) of the 986 consultations, which then were scored by two screeners. The yes-no questions (O and P) were compared by computer. To combine all aspects into an overall judgement on mutual understanding between patient and physician during each consultation the expert panel (again conferring according to NGT) decided on the weight of all (C-S-O-A-P) consultation aspects. This resulted in a scale score (MUS) ranging from –1 (total misunderstanding) to +1 (total understanding).

By comparing the patient's score on MUS with patient-related and GP-related criteria, using multilevel regression analyses, we assessed construct and criterion validity. Construct validity was good for all criteria. Criterion validity was good for all GP related criteria but not for 3 of the 5 patient related criteria. We conclude that it was possible to create a valid scale (MUS) measuring mutual understanding between physician and patient.

Since we wanted to investigate the influence of the patient's cultural background on the consultation and because this cultural background can vary strongly within and between various ethnic groups, it was necessary to measure each patient's cultural background on a scale. Chapter 6 describes the construction and validation of a Patient Cultural Background (PCB) scale. Based on 36 questions about culturally defined norms and opinions we constructed the PCB scale. Non-contributing and non-consistent questions were deleted. The scale was constructed in three different ways. Firstly by a 4-factor principal component analysis of all questions, secondly by a forced one-factor principal component analysis and thirdly by allocating the questions to four main dimensions beforehand on theoretical grounds, followed by a second order (one factor) principal component analysis. We scored each patient on the three scales, which all indicated how traditional or modern the patient was. In order to assess the internal validity, the results of patients' scores on all three scales were compared, as well as the conformity of the questions included. Irrespective of the method chosen all scales contained the same 20 questions and the scores strongly correlated (correlations 92% to 98%). Construct validity was assessed by comparing the dimensions found with dimensions known from literature and criterion validity by comparing the patient's score with criteria assumed or known to have a relationship with cultural background. Construct validity was good and criterion validity was reasonably good for most criteria but was poor for income.

In chapter 7 we investigate (using multilevel regression analyses) the influence of patient characteristics on the quality of care and satisfaction, as perceived by the patient. Since the intervention could have some influence we used within the framework of the RICIM study only data from patients who were not put through the intervention. Satisfaction was measured in three questions and perceived quality was investigated using the Quote-mi, which is validated for the ethnic minority group. The Quote-mi has an ethnic-specific subscale and a process (physician-patient interaction) subscale. Only the non-Dutch patients were asked the questions

of the ethnic specific subscale. The patient's age and cultural background (measured using the PCB-scale, see chapter 6) appeared most important for satisfaction. For the process subscale, the Dutch language proficiency was most important and for the ethnic specific subscale, the patient's cultural background (PCB-scale score). Patients with poor language proficiency and 'patients with a more modern PCB-scale score' perceived more often poor quality of care. Looking at the separate questions into more detail, questions about communication were most important for the perceived quality of care. We conclude that communication aspects are important for the physician-patient relationship but the physician's awareness about the patient's cultural background is also important irrespective of how acculturated the patient may be or seem.

Chapter 8 describes the effect of the intervention, aimed at improving intercultural communication during the consultation. It was expected that by improving the communication between physician and patient, mutual understanding between them, patient's satisfaction and perceived quality of care would increase. Due to the kind of intervention, aimed at the reduction of culturally determined differences in consultation outcomes, it was expected that little would change in consultations with patients with a Western cultural background. Measured on MUS (see chapter 5) a significant improvement of mutual understanding appeared in consultations with non-Western patients, 6 months after the GP-intervention. This improvement can be largely explained by improvement of mutual understanding in consultations with partly traditional/ partly modern patients (measured on the PCB-scale). There is also a substantial, but not significant improvement in perceived quality of care 6 months after the GP intervention, within the group of non-Western patients. The improvement of patient satisfaction is not significant either. The effect of the intervention becoming only apparent 6 months after the GP-intervention and not directly afterwards is explained by the fact that behavioural training has an after-effect and changes will reveal themselves in the course of time.

Chapter 9 discusses the most important conclusions of the study:
The patient's cultural background is a most important background characteristic because it has consequences for the quality of medical care: in consultations with patients with a non-Western ethnic or cultural background there is less mutual understanding between physician and patient than in consultations with patients with a Western background. These patients also perceive less quality of care and are more dissatisfied. For all the above quality aspects communication between physician and patient is crucial. Communication is especially influenced by the patient's language proficiency and his cultural background. The physician should adapt his communication style and should be aware of the patient's cultural background. An intervention aimed at improving communication between physician and patients with a non-Western ethnic or cultural background improves mutual understanding between physician and non-Western

patients. Possibly it leads to some improvement in the quality of care as perceived by the patient.

Kleinman claims that the exchange of explanatory models between physician and patient is necessary to reach agreement in clinical reality in order to come to a joint medical treatment. In this study we found that an increase in knowledge about cultural differences and insight into mutual opinions between physician and patient are sufficient to realize improvement in quality of care and therefore agreement about opinions or treatment is not a prerequisite.

These conclusions lead to the following recommendations:

- More attention should be paid to the patient's cultural background during consultations.
- Medical education and postgraduate retraining should provide more information on differences between cultures and their consequences for medical consultation.
- More training in intercultural communication for trainees and physicians is needed. In this respect patient centeredness means above all adaptation of communication style to the patient's cultural background.
- Patient education about the possibilities and impossibilities of healthcare is urgently needed. This education should also focus on differences with respect to the healthcare systems in the patients' countries of origin.
- Pinto's culture model of fine and coarse meshed structures gives insight into cultural differences and is useful for medical consultations. The three-step method aimed at bridging cultural differences is useful in medical practice and does justice to views and opinions of both patient and physician.
- The shortage of physicians (especially GPs) and increasing workload necessitate, especially in deprived areas of the major cities, the employment of assisting personnel, which have knowledge of cultural differences and are trained in intercultural communication. Assisting personnel should be available on a 24-hour basis.

Samenvatting

Het werk van huisarts in een grote stad is de laatste decennia erg beïnvloed door de sterk veranderde samenstelling van de praktijkpopulatie. Groepen patiënten met een andere etnisch en culturele achtergrond vestigden zich in toenemende mate met name in de oude stadswijken van de grote steden. Voor de patiënt betekende dit een ander zorgaanbod dan men gewend was en voor de huisarts een confrontatie met andere zorgvragen en zorggebruik. De consequenties ervan voor het contact tussen arts en patiënt waren dat allochtone patiënten vaker ontevreden waren over hun arts en huisartsen tijdens het contact de hulpvraag vaker als onduidelijk of oneigenlijk ervoeren en problemen hadden met het vaak slecht te reguleren zorggebruik. De communicatie was vaak moeizaam door taalbarriere en verschillen in (cultureel bepaalde) communicatiestijl.
Kleinman, een Amerikaanse antropoloog en psychiater, wees reeds op de noodzaak dat arts en patiënt met elkaar verklaringsmodellen over ziekte en gezondheid uitwisselen om zo tot een gemeenschappelijke afstemming van beleid te komen. Voor deze afstemming is begrip over en weer nodig.

Deze studie onderzoekt: 1) het verband tussen etnische culturele achtergond en andere achtergrond kenmerken van patiënten enerzijds en het wederzijds begrip tussen arts en patiënt en de door patiënten ervaren kwaliteit van, en tevredenheid met, de geleverde zorg anderzijds. 2) De relatie van de etnisch culturele achtergrond, andere patiëntkenmerken en wederzijds begrip enerzijds met de therapietrouw van patiënten en verschillen in communicatie tijdens het consult anderzijds. 3) Het effect van een interventie gericht op de communicatie, op wederzijds begrip tussen arts en patiënt, patiënten tevredenheid en de ervaren kwaliteit van zorg.

Hoofdstukken 2 tm 4 behandelen twee kleinere voorstudies. De eerste pilot (66 consulten: 1996) is uitgevoerd om te onderzoeken of de communicatie aantoonbaar verschilde in consulten met patiënten met een verschillende etnisch of culturele achtergrond en of er een relatie was tussen communicatieverschillen en consultduur of prescriptiegedrag van de huisarts. De tweede pilot (87 consulten: 1998) is uitgevoerd, enerzijds om inzicht te krijgen in het verband tussen etnisch en culturele achtergrond van de patiënt, wederzijds begrip en therapietrouw en anderzijds om de haalbaarheid van een interventie studie te testen. In beide pilot studies maakten gebruik van consulten met kinderen, die met tenminste één ouder de praktijk bezochten.

In hoofdstuk 2 wordt in 87 consulten (pilot 2) met kinderen, waarvan 48 een niet Nederlandse etnische achtergrond hadden, het wederzijds begrip bepaald tussen huisarts en de ouder van de patiënt, aan de hand van vragen over het consult en de gezondheidsklacht. De antwoorden op die vragen werden onafhankelijk van elkaar beoordeeld door drie beoordelaars

en in een consensus bijeenkomst werd tenslotte één oordeel over het wederzijds begrip per consult bepaald (goed, twijfelachtig of slecht). In consulten met allochtone patiënten was vaker sprake van slecht wederzijds begrip tussen huisarts en ouder dan in consulten met autochtone patiënten (respectievelijk 33% en 13%). Consulten, waarbij de ouders de relatie met de huisarts als problematisch ervoeren, eindigden significant vaker in slecht wederzijds begrip. Op een consult met slecht wederzijds begrip tussen arts en ouder volgde significant vaker therapieontrouw van de patiënt. Hiermee concluderen we dat een goede relatie en goed wederzijds begrip tussen huisarts en ouder voorwaarden zijn voor een goede therapietrouw van de patiënt. Maar tevens stellen we vast dat in consulten met allochtone patiënten het wederzijds begrip tussen arts en ouder en als gevolg daarvan de therapietrouw gemiddeld slechter zijn dan in consulten met autochtone patiënten.

In een studie met dezelfde dataverzameling (pilot 2) blijkt in hoofdstuk 3 dat consulten met ouders van allochtone patiënten die volgens de huisarts tussen twee culturen leefden (deels de traditionele cultuur van het land van herkomst en deels de Westerse, Nederlandse, cultuur) het meest frequent eindigden in slecht wederzijds begrip tussen arts en ouder. Met als gevolg dat op deze consulten vaker therapieontrouw volgde. Het begrip tussen huisarts en allochtone ouder, die naar de mening van de huisarts geheel leefde volgens de traditionele cultuur van het land van herkomst, was even goed als die van tussen huisarts en autochtone ouders. Ook in consulten met ‘moderne allochtone ouders’ (volgens de huisarts levend volgens de Westerse cultuur) was het wederzijds begrip ongeveer gelijk aan dat van de consulten met autochtone ouders. Daarmee is het slechtere wederzijds begrip in de consulten met allochtone patiënten voornamelijk verklaard door de slechtere score binnen de groep deels traditioneel, deels Westers levende ouders.

In hoofdstuk 4 (pilot 1) kijken we naar verschillen in communicatie tussen huisarts en ouder die met hun zieke kind het spreekuur bezochten in een descriptieve studie van 66 consulten (32 autochtone en 34 allochtone kinderen). Alle verbale uitingen van ouder en huisarts werden gescoord volgens de RIAS methode, middels video opnamen van het consult. Deze methode verdeelt de uitingen in twee hoofdgroepen: instrumentele en affectieve uitingen, welke weer in subcategoriën zijn onderverdeeld. Consultduur werd gemeten middels de video opname en er geobserveerd werd of medicatie werd voorgeschreven. De consulten met de allochtone patiënjes duurden, in tegenstelling tot ander onderzoek, langer dan de consulten met de autochtone kinderen (respectivelijk 13 versus 10 minuten). Ook werd in consulten met allochtone kinderen vaker medicatie voorgeschreven dan bij de Nederlandse kinderen (respectivelijk 71% versus 50% prescriptie). De huisarts deed vaker uitingen van empathie en had vaker een gesprek over leefstijl met de allochtone ouders. De verschillen in communicatie beïnvloeden de consultduur niet. Het verschil in prescriptie in consulten met allochtone en

autochtone patiënten werden deels verklaard door verschillen in gepresenteerde morbiditeit, deels door verschil in communicatie. Ten aanzien van de invloed van communicatieverschillen bleek het verschil in prescriptie groter (hoewel niet significant) tussen beide groepen na correctie voor het grotere aantal 'empathische' uitingen van de arts bij allochtone patiënten. Als voorzichtige conclusie stellen we dat de arts, in consulten met allochtone patiënten mogelijk meer 'empathische' uitingen deed ten einde de prescriptie van medicatie te beperken.

Deze voorstudies genereerden de vraag of de gevonden verschillen in consultuitkomsten, in consulten met patiënten met een verschillende etnisch of culturele achtergrond, middels een interventie te verkleinen waren. De hoofdstukken 5 tm 8 behandelen deelstudies binnen het kader van de van de RICIM-studie*, een gerandomiseerde, gecontroleerde interventie studie, uitgevoerd in 2000. Van de 178 huisartsen, in achterstandswijken in Rotterdam die voor deelname zijn benaderd, zegden 38 toe. De huisartsen zijn - at random - in een controlegroep en een interventiegroep verdeeld. Na een eerste meting (nulmeting) volgde de interventie; bij de huisartsen, een nascholingscursus gericht op kennis van cultuurverschillen en verbetering van de interculturele communicatie. De patiënteninterventie, een video-instructie direct voor het consult, gericht op een meer directe (Westerse) communicatie werd tijdens de tweede en derde meting gegeven aan de patiënten van de interventiepraktijken. Met deze dubbele interventie beoogden we een verbetering van het wederzijds begrip tussen huisarts en patiënten met een niet-Westerse etnisch of culturele achtergrond en tevens een verbetering van patiënten tevredenheid en ervaren kwaliteit van zorg. In een tweede meting direct na de interventie en een derde meting een half jaar later werd het interventie-effect bepaald. Iedere meting bestond uit een vragenlijst voor de huisarts en een patiëntenenquête, afgenomen middels een huisbezoek. De vragenlijst en enquête bestonden uit vragen over het consult en achtergrondvragen. In totaal werden in drie metingen 2407 patienten van de 38 huisartsen voor deelname benaderd. Uiteindelijk participeerden 1005 patiënten en de 38 huisartsen. Van 986 consulten beschikken we over gegevens van arts en patiënt. Meting 1 bestond 176 consulten in de interventiegroep en 175 in de controlegroep, meting 2 uit 172 interventiegroep en 161 controlegroep consulten en meting 3 uit 151 consulten in beide groepen; 44% van de patiënten had een niet-Nederlandse etnische achtergrond.

Om objectief het door de interventies beïnvloedde wederzijds begrip tussen huisarts en patiënt te kunnen meten was het nodig een schaal te construeren. Hoofdstuk 5 beschrijft de ontwikkeling en validering van de 'Mutual Understanding Scale' (MUS). In de 38 praktijken werd door vergelijking van antwoorden op vragen over het consult gesteld aan arts en patiënt het begrip tussen beiden bepaald. De gestelde vragen doorlopen de verschillende fasen en aspecten van het consult zoals; aard en duur van de klacht (S), oorzaak van de klacht (C),

* Rotterdam Intercultural Communication In Medical setting studie

diagnostisch beleid (O), gestelde diagnose (A) en therapeutisch beleid (P) zoals afgesproken of tijdens het consult geffectueerd. Op criteria, vastgesteld volgens 'Nominal Group Technique' (NGT) door een expertpanel van 11 personen, werden de open vragen (S-C-A) van de 986 consulten gescoord door twee 'screeners'. De andere consultfasen (O en P) waren ja-nee vragen die per computer werden vergeleken. De weging van alle consultaspecten of fasen (C-S-O-A-P) tot één totaal oordeel ten aanzien van het wederzijds begrip tussen arts en patiënt per consult werd weer door een expertpanel (vergaderend volgens NGT criteria) gemaakt. Dit resulteerde in een schaal (MUS) van –1 (volledig onbegrip) tot +1 (volledig begrip). Om de schaal te valideren zijn construct en criterium validiteit bepaald door middel van vergelijking (met multilevel regressie-analyses) van de MUS-score per consult met patiënt- en huisarts gerelateerde criteria. De construct validiteit was goed voor alle criteria. De criteriumvaliditeit was goed voor alle huisartsgerelateerde criteria maar niet voor 3 van de 5 patiënt gerelateerde criteria. We concluderen dat het mogelijk was een betrouwbaar meetinstrument te ontwikkelen om het begrip tussen arts en patiënt in het consult te meten.

Omdat de culturele achtergrond van patiënten binnen en tussen alle etnische groepen sterk kan verschillen, was het voor onderzoek van de invloed ervan op het consult noodzakelijk ook de culturele achtergrond van de patiënt op een schaal weer te geven. In hoofdstuk 6 wordt de ontwikkeling en validering van een 'Patient Cultural Background' (PCB) schaal beschreven. Uit 36 vragen aangaande cultureel bepaalde normen en opvattingen is de PCB schaal ontwikkeld. We verwijderden vragen die niet consistent waren of onvoldoende bijdroegen. Uit de vragen is op drie manieren de schaal geconstrueerd: ten eerste door primair een 4 factor principale componenten anlyse uit te voeren op alle vragen. Ten tweede door een gedwongen éénfactor analyse en ten derde door de vragen op voorhand en op theoretische grond te verdelen in vier dimensies en vervolgens in een tweede ordening een gedwongen éénfactor principale componenten analyse uit te voeren op deze 4 dimensies. Iedere patiënt krijgt zo, op elk van de drie schalen, een uitkomst van modern naar traditioneel. De interne validiteit werd bepaald door de uitkomsten van de drie schalen te vergelijken en door vergelijking van de samenstellende vragen. Onafhankelijk van de gekozen methode bleek de score grotendeels hetzelfde (correlaties 92% tot 98%) en er was geen verschil in de 20 samenstellende vragen bij alle drie schalen. Door cultuurdimensies, bekend uit de literatuur, met de gevonden eigen dimensies te vergelijken is de constructvaliditeit bepaald. Door vergelijking van de score van de patiënt op de schaal met criteria waarvan op voorhand de relatie met de culturele achtergrond bekend of aannemelijk was, is de criterium validiteit bepaald. De construct validiteit bleek goed evenals de criterium validiteit, behalve voor de relatie met inkomen.

In hoofdstuk 7 onderzoeken we (met behulp van multilevel regressie analyses) de invloed van patiënt kenmerken op de door de patiënt ervaren kwaliteit van zorg en satisfactie. Hiervoor zijn in het kader van de RICIM studie alleen de 663 niet geïntervenieerde patiënten (controlegroep patiënten en de patiënten uit de nulmeting van de interventiegroep) geincludeerd. Satisfactie is gemeten in drie vragen en ervaren kwaliteit van zorg in voor de doelgroep gevalideerde schaal de Quote-mi. De Quote-mi kent twee subschalen: de proces schaal, aangaande de arts-patiënt relatie en de etnisch specifieke schaal betreffende de aandacht voor etnisch-culturele aspecten. Deze laatste subschaal is alleen bij de niet-Nederlandse patiënten afgenomen. Voor satisfactie bleken leeftijd en culturele achtergrond (PCB-schaal score, zie hoofdstuk 6) van belang. Voor de proces-subschaal bleek de taalvaardigheid van de patiënt het belangrijkste achtergrond kenmerk en voor de etnisch specifieke subschaal de culturele achtergrond (PCB schaal score). Daarbij ervoeren de patiënten met een slechtere taalvaardigheid en 'patiënten met meer moderne opvattingen op de PCB schaal' vaker slechtere kwaliteit van zorg. Kijkend in detail naar het belang van de afzonderlijke vragen voor de ervaren kwaliteit, dan zijn de vragen betreffende communicatie het belangrijkst. We concluderen dat voor de ervaren kwaliteit van zorg communicatie belangrijk is, maar aandacht van de arts voor de culturele achtergrond van de patiënt blijkt ook van groot belang hoe geïntegreerd de patiënt ook is of lijkt.

Hoofdstuk 8 beschrijft het effect van de interventie gericht op verbetering van de interculturele communicatie tijdens het consult. Het was de verwachting dat bij verbetering van de communicatie tussen arts en patiënt het wederzijds begrip tussen beiden, de door de patiënt ervaren kwaliteit van zorg en de tevredenheid zouden toenemen. Gezien de aard van de interventie, gericht op verkleining van, door cultuur verschillen bepaalde, consultuitkomsten, was de verwachting dat in consulten met patiënten met een Westerse achtergrond er weinig zou veranderen. Gemeten met de MUS (zie hoofdstuk 5), blijkt een significante verbetering van het wederzijds begrip in consulten met niet-Westerse patiënten, 6 maanden na de huisartsinterventie. Deze verbetering kan vooral worden verklaard door verbetering in consulten met de deels traditionele, deels moderne patiënten (gemeten met de PCB-schaal). Er is ook een substantiële maar niet significante verbetering in ervaren kwaliteit van zorg, 6 maanden na de huisartseninterventie, in de groep niet-Westerse patiënten. Ook de verbetering in tevredenheid van patiënten is niet significant. Dat het effect van de interventie niet duidelijk is direct na de interventie bij de huisartsen maar wel 6 maanden later kan worden verklaard door het feit dat de resultaten van gedragsbeïnvloedende trainingen door het fenomeen van 'nawerken' pas later tot uiting komen.

Hoofdstuk 9 geeft de belangrijkste conclusies uit deze studie:

De culturele achtergrond van de patiënt is een belangrijk patiënten achtergrondkenmerk omdat het consequenties heeft voor de kwaliteit van zorg: in consulten met patiënten met een niet Westerse etnische of culturele achtergrond is er minder wederzijds begrip tussen arts en patiënt en een lager ervaren kwaliteit van zorg.
Ten aanzien van bovengenoemde kwaliteitskenmerken is de communicatie cruciaal. De communicatie wordt vooral beïnvloed door de taalvaardigheid van de patiënt en diens culturele achtergrond. De arts dient zijn communicatiestijl hierop aan te passen en sensitief te zijn ten aanzien van de culturele achtergrond van de patiënt. Een interventie gericht op verbetering van de communicatie tussen arts en niet-Westerse allochtone patiënt is effectief en leidt tot verbetering van wederzijds begrip en mogelijk ook de ervaren kwaliteit van zorg. Kleinman stelt dat uitwisseling van verklaringsmodellen tussen arts en patiënt nodig is voor overeenstemming in 'klinische realiteit' (opvattingen en gezichtspunten ten aanzien van ziekte) zodat ze samen tot een gemeenschappelijk afgestemd beleid komen. In deze studie vonden we dat verbetering van kennis van en inzicht in wederzijdse opvattingen tussen arts en patiënt voldoende was en tot sterke verbetering van de kwaliteit van zorg leidt en overeenstemming dus geen voorwaarde is.

Hieruit volgen de belangrijkste aanbevelingen uit de studie:

- De noodzaak voor meer aandacht in het consult voor de culturele achtergrond, als belangrijk aspect van de achtergrond van patiënten.
- Er is dringend behoefte aan meer kennisoverdracht in medische opleiding en nascholing over cultuurverschillen en het belang ervan voor het verloop van het medisch consult.
- Meer training in interculturele communicatie aan aankomende en gevestigde artsen is gewenst. Patiëntgerichtheid betekent in dit opzicht vooral een adaptatie van de communicatiestijl aan de culturele achtergrond van de patiënt.
- Patiëntenvoorlichting en educatie over mogelijkheden en onmogelijkheden van het medisch zorgaanbod is dringend gewenst. Deze educatie dient ook in te gaan op de verschillen in zorg met het land van herkomst.
- Pinto's cultuurmodel van F en G-structuur is inzichtelijk en handzaam voor het medisch consult. De driestappen methode tot overbrugging van cultuurverschillen is bruikbaar in de praktijk en doet recht aan de opvattingen van patiënt en arts.

- Het tekort aan (huis)artsen en de oplopende werkdruk maken de inzet van ondersteunend personeel, met kennis van cultuurverschillen en getraind in interculturele communicatie, in achterstandswijken noodzakelijk. Deze voorziening dient gedurende 24-uur per dag beschikbaar te zijn.

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Dankwoord

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Curriculum vitae

J.A.M.Harmsen werd geboren op 19 januari 1949 te Zevenaar (Gld).
Na het behalen van het HBS-B diploma aan het Katholiek. Gelders Lyceum in 1968 studeerde hij geneeskunde aan de Katolieke Universiteit Nijmegen van 1969 tot 1977. Aansluitend aan zijn studie geneeskunde volgde hij van 1977 tot 1978 de huisartsopleiding aan het Nijmeegs Universitair Huisartseninstituut, met als opleidingsplaats 'het Withuis' te Venlo.
Na de militaire dienst van 1978 tm 1979 vestigde hij zich in als huisarts in Rotterdam-Charlois in 1980 in associatie met zijn echtgenote S.H. Lo Fo Wong, waar zij beiden tot heden nog steeds werkzaam zijn.
Vanaf 1989 tot heden is hij als huisartsopleider betrokken bij de huisartsopleiding.
Van 1989-1998 is hij actief geweest als voorzitter van een projectgroep rond huisartsenzorg in bejaarden tehuizen (MedZoVer project in Rotterdam zuid). Van1997 tot 1999 nam hij deel aan en tweetal LHV-commissies rond herorganisatie van huisarts- en verpleegartszorg in verzorgingstehuizen en was éénmaal LHV gedelegeerde in een (HKZ) overlegronde rond kwaliteitsbeleid en certificering daarvan in verzorgingstehuizen.
Hij was lid van de nascholings organisatie voor huisartsen (Commissie voor de Artsencursus Rotterdam en omstreken)van 1990 tot 1999.Van deze organisatie was hij secretaris van 1993 tot 1995 en voorzitter van 1995 tot 1999.
Van 1996 tot en met 1998 was hij bij twee pilot onderzoeken van het huisartsinstituut te Rotterdam betrokken rond communicatie verschillen in de huisartspraktijk tussen allochtone en autochtone patiënten.
Van 1999-heden volgde part-time het promotieonderzoek naar interculturele communicatie in de huisartspraktijk eerst op het instituut Huisartsgeneeskunde en sinds juli 2002 op het instituut Beleid en Management Gezondheidszorg van het Erasmus MC. Sinds 2002 is hij betrokken bij de basisopleiding geneeskunde in de begeleiding van co-assistenten en coördineert hij tevens de eerstejaarsstage voor de opleiding Beleid en Management Gezondheidszorg.
Sinds 1973 is hij gehuwd met Sylvia Lo Fo Wong. Zij hebben 2 dochters (Eva 1983 en Roos 1985).