

Intercultural communication in general practice

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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 the 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 correlation with compliance. Mutual understanding and consequently compliance is more often poor in consultations with ethnic-minority parents than with native-born parents.

Keywords: general practice, intercultural communication, patient beliefs

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 to ethnic-minority parents.¹ When these children have a medical problem it is very important that their parents 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 a cultural difference 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. Kleinman⁶ 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 make 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

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compliance of native-born and ethnic-minority patients (figure 1).

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 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 the 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 the 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 Leeftang.⁷ The following beliefs were measured:

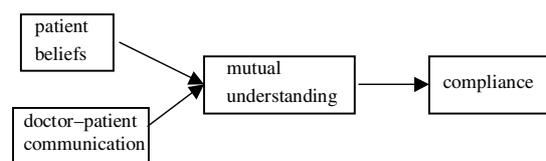


Figure 1 Aim of the study

i) The knowledge of and attitude towards health, disease and health care: with a questionnaire about health beliefs (11 items from a scale by Mootz⁸) asking whether a patient has culturally shaped normative ideas about causes of disease and whether nature can solve health problems. Parents were classified into three groups: few, moderate and many normative ideas. With five other questions parents were asked what they thought about the possibilities of modern health care⁸ (e.g. 'do you believe physicians today can heal most diseases?'). Parents were classified into three groups: little, moderate, and much faith in possibilities of modern health care.

ii) 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 the 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.

iii) 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 Mootz⁸). For both indicators, parents were classified into 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 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 as good, doubtful and poor. In 71% of cases agreement was reached independently and 29% required discussion until consensus was reached.

Statistical analysis

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 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 in ethnic minorities (33%) than in native-born parents (13%) ($p=0.07$).

Compliance with prescribed therapy was judged as good in 77% of consultations, as doubtful in 10% and as poor in 13%. 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 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

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
Primary school (max)	3	34	20	
Lower professional	68	40	53	
Higher education	30	26	28	

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 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 ($p=0.03$).

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.

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 a patient's background has a significant relationship 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:

- i) 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 consultations in the ethnic-minority group end without mutual understanding.
- ii) Consultations without mutual understanding more often result in non-compliance.

Table 2 Relationship 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	
	OR	95% CI	OR	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 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

iii) 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.

iv) Ethnic-minority parents experience the relationship and communication with their GP more negatively, which is associated with differences in mutual understanding.

v) The communication between patient and general practitioner, as analysed with the RIAS, shows no relationship 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 Kleinman⁶ 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 psychosocial, problems. A similar study with adult patients is necessary.

The results reveal that 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 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 by 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 into two groups: the native-born and the ethnic-minority patients. While the native-born population was 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 the cause and therapy of 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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