Communication Patterns of Primary Care Physicians in the United States and The Netherlands

Jozien M. Bensing, PhD, Debra L. Roter, PhD, Robert L. Hulsman, PhD

BACKGROUND: **While international comparisons of medical practice have noted differences in length of visit, few studies have addressed the dynamics of visit exchange.**

OBJECTIVES: **To compare the communication of Dutch and U.S. hypertensive patients and their physicians in routine medical visits.**

DESIGN: **Secondary analysis of visit audio/video tapes contrasting a Dutch sample of 102 visits with 27 general practitioners and a U.S. sample of 98 visits with 52 primary care physicians.**

MEASUREMENTS: **The Roter Interaction Analysis System applied to visit audiotapes. Total visit length and duration of the physical exam were measured directly.**

MAIN RESULTS: **U.S. visits were 6 minutes longer than comparable Dutch visits (15.4 vs 9.5 min, respectively), but the proportion of visits devoted to the physical examination was the same (24%). American doctors asked more questions and provided more information of both a biomedical and psychosocial nature, but were less patient-centered in their visit communication than were Dutch physicians. Cluster analysis revealed similar proportions of exam-centered (with especially long physical exam segments) and biopsychosocial visits in the 2 countries; however, 48% of the U.S. visits were biomedically intensive, while only 18% of the Dutch visits were of this type. Fifty percent of the Dutch visits were socio-emotional, while this was true for only 10% of the U.S. visits.**

CONCLUSIONS: **U.S. and Dutch primary care visits showed substantial differences in communication patterns and visit length. These differences may reflect country distinctions in medical training and philosophy, health care system characteristics, and cultural values and expectations relevant to the delivery and receipt of medical services.**

KEY WORDS: **communication; primary care; patient-centeredness; health care system; visit length.**
J GEN INTERN MED 2003;18:335–342.

Increasing economic pressures toward greater productivity in the delivery of medical care worldwide have focused attention on the impact of visit length on quality of care and patient outcomes.[1,2] Within this context, the substantial differences in the length of primary care visits among Western countries has stimulated interest in comparative studies. Estimates of average visit length for general practitioners (GPs) in Europe range between 7 and 16 minutes, with The Netherlands falling in midrange, averaging 10-minute visits.[3] In the United States, comparable visits are 17 minutes.[4] These numbers suggest that visit length may be a consequence of national health system characteristics as much as national habits and medical care expectations.[3]

Physicians believe visit duration is an important dimension of quality of care, as do most patients.[5] Indeed, some investigators have argued that visit length in itself can be considered a proxy indicator of quality of care.[6,7] Short visits are associated with less problem identification,[8] fewer preventive actions undertaken,[2,8–10] less lifestyle[11] or psychosocial discussion,[6,10,12–14] and more antibiotics prescribed.[12] Many patients report greater ease in discussing problems and more participation in decision making in longer visits.[8,15,16] However, it should be noted that the overwhelming majority of patients are satisfied with the time they get for their visit,[6,8,15,17,18] and many studies have reported inconsistent or weak associations between length of visit and quality.[9,11,12,15,19–21]

Many researchers maintain that visit length has less impact on quality of care than do the doctor as a person and his or her working style.[1,22] The aspects of physician working style most often linked to quality of care are those encompassed in the broad concept of patient-centeredness.[23–25] Definition and measurement of the concept have ranged from surveys of professional and patient attitudes, expectations, and preferences to a variety of approaches and measures reflecting visit behaviors.[23–28] There is some consensus in these studies that patient-centeredness involves the grounding of the therapeutic dialog in a biopsychosocial rather than a biomedical paradigm[29–32] of active patient engagement in the medical dialog,[25] with the doctor being open and responsive to the patient's agenda and perspective, including elicitation of the patient's concerns, expectations, and preferences for treatment[26] and establishment of emotional rapport.[33]

Despite systematic differences in visit length between countries, national debates regarding the length of medical encounters seldom use an international perspective, thus ignoring country-specific influences on visit length that originate in characteristics of health care systems such as *primary careness*.[34] Against this background, a comparative study was designed based on secondary analyses of existing databases to explore this issue in 2 countries that are known for their differences in primary careness, the United States and The Netherlands.[34] The aim of the study

Received from NIVEL, Netherlands Institute of Primary Health Care (JMB), Utrecht, The Netherlands; Johns Hopkins University, School of Hygiene and Public Health (DLR), Baltimore, Md; Academic Medical Center, Department of Medical Psychology (RLH), Amsterdam, The Netherlands.

Address correspondence and requests for reprints to Dr. Bensing: NIVEL, P.O. Box 1568, 3500 BN, Utrecht, The Netherlands (e-mail: J.Bensing@NIVEL.NL).

was to compare Dutch and U.S. medical visits for patients with a common diagnosis of hypertension in terms of visit length, duration of the physical examination, and communication dynamics. The specific research questions are:

1. What is the difference in visit length between the United States and The Netherlands for a group of patients with a common diagnosis of hypertension?
2. How are differences in visit length related to (a) conversational contributions of doctor and patient and (b) communication style of the visit?

METHODS

Sample

The study is a secondary analysis derived from 2 existing data sets of observed primary care medical encounters collected in the United States and The Netherlands. In both instances, a sample of approximately 100 visits with hypertensive patients was drawn from larger data sets and subjected to further analysis. The Dutch sample consisted of 102 visits, recorded in 1986 by 27 GPs, drawn from a body of 1,569 videotaped visits in general practice.[35] The U.S. sample was comprised of 98 visits recorded in 1992/1993 with 52 physicians and drawn from a study of 648 audiotaped primary care visits with 69 physicians.[36]

Patients. There were no differences in age, gender or (by selection) primary health problem between the study samples of the 2 countries. Patients in the U.S. study sample averaged 55.0 years of age (SD, 16.9) and were 58% female, while in the Dutch study, the patients' average age was 57.5 (SD, 15.0), and 65% of the sample was female. The U.S. sample was 79% white and 20% African American [there was 1 patient (1%) who was Asian]. The Dutch study sample was overwhelmingly white, as was the larger Dutch population at the time of data collection. Socioeconomic status (SES) was only available for the U.S. sample: 44% of U.S. patients reported less than $20,000 per year in income, 32% between 21,000 and 39,000, and the remainder (23%) reported >$40,000; education level was varied, with 27% not completing high school, 32% high school graduates, 21% having some college, and 20% graduated from college. There were no data available on Dutch patient SES; however, in the Dutch health care system all patients are registered with a general practitioner (who is paid per capita), and there are no financial thresholds for patients in making medical visits. Few Dutch patients seek routine care outside of the formal system.

Physicians. The U.S. physicians averaged 41 years of age (SD, 8) with an average of 11 years in practice (SD, 8). Most physicians (92%, n = 48) were male. Physician ethnicity varied somewhat; 81% (n = 42) of physicians were white 8% (n = 4) were African American and 11% (n = 6) were Asian. Almost half (47%) of the U.S. physicians were internists, and 53% were family practitioners (only 1 third-year resident in family practice was included in the study; all other physicians were community practitioners). Almost one third (31%) of the physicians were in solo practice, 27% in small groups, and 40% practiced as part of a managed care organization.

All of the Dutch physicians specialized in general practice (based on an obligatory vocational training of 3 years after medical school). Like the physicians in the U.S. sample, almost half of the Dutch physicians had less than 10 years' experience (8% <5 years, and 39% between 5 and 10 years) with the other half having more experience (30% between 10 and 15 years, and 24% >15 years). All of the Dutch physicians were white males. The practice setting varied in a manner similar to the U.S. sample: 43% of physicians were in solo practice, 23% in group practice, and 33% practicing in multidisciplinary health centers. Dutch GPs have fixed lists of patients for whom they are the first contact for all health problems and hold a gatekeeper position to secondary care. Ninety percent of all health problems presented in general practice are treated without referrals to medical specialists.

Instruments

The total visit length and the duration of the physical examination were measured in both countries. Communication behaviors were rated in both countries through the application of the Roter Interaction Analysis System (RIAS), a widely used observation system with proven validity and reliability.[37] The system's unit of analysis is a statement or phrase conveying a complete thought, usually a simple sentence or a clause in a compound sentence spoken by either the patient or physician, and identifies 37 mutually exclusive and exhaustive code categories representing independent interactive elements. These individual coded elements can be used in analysis separately, or grouped into larger composites to represent the broad conceptual communication domains of affective and instrumental behavior.[24,38–41] Affective communication carries explicit emotional content related to elements of rapport and interpersonal relationship, while instrumental behavior includes technically based skills used to address the patient's biomedical and psychosocial problems and concerns. Four affective domain composites were constructed from individual RIAS code categories reflecting: 1) rapport building (RIAS codes of empathy, paraphrase/interpretation, agreements, legitimization statements, and partnership statements); 2) concern and optimism (RIAS codes of worry and reassurance/optimism); 3) social and positive talk (RIAS codes of personal remarks, jokes, and approvals); and 4) negative talk (RIAS codes of disagreements and criticisms). Similarly, 4 instrumental domain composites were constructed: 1) biomedical exchange

(RIAS codes of biomedical questions, biomedical information giving, and counseling in regard to medical history, symptoms, and therapeutic regimen); 2) psychosocial exchange (RIAS codes of psychosocial questions, information giving, and counseling in regard to social and family relations at work and at home, performance of activities and functions related to daily living, and exchanges related to feelings and emotions); 3) partnership building (RIAS codes of asking for patient opinions and beliefs, asking for clarification of fact, checking for understanding); and 4) procedural exchanges (RIAS codes of giving of orientation).

RIAS Coding and Reliability. For the Dutch study, the visits were RIAS coded by 2 trained coders, both psychologists, who had received training in the use of RIAS (by a U.S.-trained supervisor) and used the English-language RIAS training materials and manual. All visits were coded by one of the observers; 25 visits also were coded by the second coder to assess interrater reliability. The data of the first observer were used in the analyses. For the U.S. study, there were 3 trained RIAS coders. Intercoder reliability was calculated on a 10% sample of double-coded tapes randomly assigned to combinations of the 3 coders, as part of the original, larger study.

The intercoder reliability for individual physician categories ranged between 0.62 and 0.98 in the United States and between 0.76 and 0.99 in The Netherlands. Similarly, reliability for individual patient categories ranged between 0.50 and 0.85 in the United States and between 0.67 and 0.99 in the Dutch sample.

Analyses

SPSS software, version 10.0.7 (SPSS Inc., Chicago, Ill) was used for the analyses. *t* tests were used for establishing differences related to visit time and to communication behaviors in both countries. A k-means cluster analysis was performed using proportional measures of instrumental and affective behaviors, and the relative time spent on the physical examination was used to identify visit patterns of communication. Multivariate analysis of variance was used to test the relative contribution of country and visit type to the length of the visit.

RESULTS

Length of Visit and Duration of the Physical Examination

As was expected, the length of visit was substantially longer in the United States than in The Netherlands. This difference was apparent in the 6-minute difference in the length of visit as a whole (15.4 and 9.5 min, respectively; $t = 6.8$, $P < .001$), as well as a 2-minute difference in the length of the physical examination (3.9 min and 2.2 min, respectively; $t = 4.5$, $P < .001$). The physical examination segment of the visit contributed a similar proportion of total visit length in both countries, about a quarter of the visit time (24.5% for U.S. visits and 25.7% for Dutch visits).

Conversational Contribution of Physician and Patient

Although the length of visit and the amount of talk contributed by participants are related, they are not equivalent measures. For instance, longer U.S. visits could be accounted for by more frequent pauses in conversation, longer periods of silence during which chart notes are prepared or other business attended to, or slower speech speed. This, however, was not the case. No statistically significant differences were found in the amount of patient contribution to the conversation in the U.S. and Dutch samples (157.9 vs 149.2 statements, respectively); however, there were differences in the physician contribution to the medical dialog, with U.S. compared to Dutch physicians contributing substantially more to the visit dialog (176.3 vs 136.8 statements; $t = 2.7$, $P < .01$). Consequently, the U.S. physicians can be viewed as more verbally dominant in their visits, contributing 52.4% of the dialog (95% confidence interval [95% CI], 50.6% to 54.2%), whereas in The Netherlands, physicians contribute 49.1% of the medical dialog (95% CI, 47.7% to 50.5%).

A detailed analysis of the speech distribution is presented in Table 1 and Table 2.

Inspection of the frequency and proportional distributions of physician communication across RIAS categories, as presented in Table 1, reveals differences in the relative emphasis of communication in the 2 countries. As shown in the Table, Dutch physicians show a more equal pattern of emphasis on affective and instrumental behaviors (57% and 43%, respectively) than do U.S. physicians, who devote more than twice as much of their conversation to instrumental rather than affective exchange (67% and 33%, respectively). This is evident both in the proportion of the visit's dialog devoted to these broad categories of exchange as well as in the actual frequency of statements. Most of the difference in the total number of physician statements made throughout the visit is accounted for by the higher frequency of instrumental behaviors by U.S. physicians (120 compared with 76 statements for U.S. and Dutch physicians, respectively).

Closer analysis of Table 1 and the specific categories within the instrumental and affective domains reveals several notable differences. Dutch physicians engaged in substantially less biomedical and psychosocial discussion than did U.S. physicians. These differences were especially evident in the frequencies and percentages of discussion devoted to question asking and information giving within the biomedical area.

Differences in affective behavior also are displayed in Table 1. Most striking is the higher level of exchange for Dutch physicians in the categories reflecting rapport building; Dutch doctors used about 50% more rapport statements (proportionately) than did U.S. doctors (29.8%

Table 1. Profile of Physician Communication Behavior in The Netherlands and the United States

	The Netherlands (*N* = 102)		United States (*N* = 98)	
	Frequency (SD)	Average Proportion, %	Frequency (SD)	Average Proportion, %
Total physician statements	136.8 (85.3)	100	176.3 (120.0)*	100.0
Instrumental behavior	76.4 (45.9)	57.3	120.1 (101.9)†	67.1
Biomedical exchange	36.5 (25.8)	27.7	72.7 (91.1)†	40.3
Questions	9.2 (6.6)	7.6	18.2 (11.3)†	12.1
Information	27.2 (21.8)	20.0	54.6 (91.4)*	28.2
Psychosocial exchange	10.8 (15.8)	7.1	21.9 (22.9)†	12.2
Questions	3.5 (5.2)	2.4	10.4 (11.5)†	6.1
Information	7.3 (13.2)	4.7	11.5 (16.4)‡	6.2
Directions	17.5 (13.2)	13.1	17.1 (14.2)	9.9
Partnership building	5.0 (5.2)	3.7	4.5 (9.5)	2.4
Other	6.7 (8.4)	5.7	3.9 (6.2)*	2.3
Affective behavior	60.5 (47.7)	42.7	56.1 (33.0)	32.9
Rapport building	44.5 (44.3)	29.8	32.6 (20.8)‡	19.1
Showing concern and optimism	5.5 (4.8)	4.5	5.5 (5.4)	3.1
Social behavior	9.4 (10.2)	7.8	17.5 (16.4)†	10.4
Disagreements	1.1 (2.3)	0.6	0.6 (1.4)‡	0.3

* P < *.01.*
† P < *.001.*
‡ P < *.05.*

vs 19.1%, respectively; $P < .001$). Interestingly, Dutch physicians also engaged in more disagreements than did U.S. physicians, although the frequency of this type of exchange was very low and constituted less than 1% of all exchanges (0.6% vs 0.3%; $P < .05$). Differences in social, nonmedical conversation were not as striking as those found for rapport building, but U.S. physicians engaged in substantially more social and positive exchange than did Dutch physicians (10.4% vs 7.8%; $P < .001$).

Patient communication, as shown in Table 2, largely paralleled physician communication; however, a notable exception is that in contrast to the substantially higher levels of talk by U.S. compared with Dutch physicians throughout the visit, the number of statements contributed by patients was similar in each country (158 vs 149 in U.S. and Dutch patients, respectively). As was true for physicians, patients also showed a primary emphasis on instrumental rather than affective exchange; however,

Table 2. Profiles of Patient Communication Behavior in The Netherlands and the United States

	The Netherlands (*N* = 102)		United States (*N* = 98)	
	Frequency (SD)	Average Proportion, %	Frequency (SD)	Average Proportion, %
Total patient statements	149.2 (97.7)	100.0	157.9 (81.1)	100.0
Instrumental behavior	96.5 (72.0)	62.7	115.0 (68.9)	71.3
Biomedical exchange	43.3 (33.9)	30.4	59.1 (32.3)*	39.5
Questions	6.0 (4.9)	4.6	6.1 (12.7)	3.6
Information	37.3 (30.8)	25.8	53.0 (28.8)*	36.0
Psychosocial exchange	30.3 (42.1)	16.9	47.2 (48.0)†	26.4
Questions	0.6 (1,6)	0.4	0.7 (1.4)	0.4
Information	29.7 (41.5)	16.5	46.5 (47.4)†	26.1
Directions	6.4 (9.8)	3.4	2.8 (10.2)‡	1.5
Partnership building	3.3 (3.1)	2.5	2.1 (3.7)‡	1.2
Other	13.1 (13.4)	9.5	3.7 (7.2)*	2.6
Affective behavior	52.7 (34.0)	37.3	42.9 (28.1)‡	28.7
Rapport building	26.9 (18.6)	19.4	23.8 (17.0)	16.4
Showing concern and optimism	13.0 (10.9)	8.6	5.9 (8.6)*	3.5
Social behavior	11.4 (18.7)	8.5	11.9 (12.4)	8.0
Disagreements	1.4 (3.1)	0.8	1.2 (4.8)	0.7

* P < *.001.*
† P < *.01.*
‡ P < *.05.*

Dutch patients showed a somewhat closer pattern of emphasis on instrumental and affective behaviors (63% and 37%, respectively) than did U.S. patients (71% and 29%, respectively). Most Dutch patients disclosed less information to their physicians than did U.S. patients in the biomedical realm (30.4% vs 39.5%; $P < .001$) as well as the psychosocial realm (16.9% vs 26.4%; $P < .001$), but expressed more concern and optimism (8.6% vs 3.5%; $P < .001$). It is notable that although U.S. patients both gave and received more information than did Dutch patients, they did not ask more questions. In both countries, patients asked an average of 6 biomedical questions.

Communication Styles

A cluster analysis was performed to identify patterns of communication style across the 2 study samples. Communication variables entered into the analysis included physical examination time as a proportion of the total visit time, as well as the proportion of physicians' talk that fell into 4 instrumental composites (biomedical exchange, psychosocial exchange, partnership building, and directive behavior) and 4 affective communication composites (rapport building, social talk, concern and optimism, and disagreements) identified earlier.

The distinguishing characteristics of each of the patterns were based on mean levels of key communication variables evident in the identified clusters. These means were used to derive the descriptive pattern names: "exam-centered," "biomedically intensive," "biopsychosocial," and "socioemotional."

As reflected in Table 3, the exam-centered pattern was characterized by a very long physical examination segment (more than twice the length of the exam in other clusters) in combination with low levels of psychosocial discussion and high levels of biomedical exchange and directive behavior. This pattern represented 23.6% of the visits ($n = 46$) with an average length of 12.4 minutes (SD, 6.9). The biomedically intensive pattern showed high levels of biomedical content and low levels of rapport building, although substantially shorter physical exam segments than the exam-centered pattern. This pattern was seen in 32.8% ($n = 64$) of the visits, with an average length of 12.2 minutes (SD, 5.6). The biopsychosocial pattern was characterized by a nearly even focus on both biomedical and psychosocial content and high levels of partnership building. This communication pattern accounted for the smallest concentration of visits (13.3%; $n = 26$) and averaged 16.1 minutes (SD, 9.8). Finally, socioemotional visits were characterized by high levels of rapport building. This style accounted for 30.5% of visits ($n = 59$) and an average length of 10.8 minutes (SD, 5.7).

There were significant differences in the level of physician verbal dominance across clusters. In a 2-way analysis of variance, verbal dominance differed between the cluster types such that physicians were less dominant in the biopsychosocial and socioemotional visits, in which physicians contributed 49% and 48% of dialog, respectively, compared with the biomedically intensive and exam-centered visits, in which physicians contributed 53% and 52% of dialog, respectively ($F = 3.6$; $df = 3$; $P = .014$).

There were no differences between the United States and The Netherlands in the frequency of exam-centered or biopsychosocial visits. However, the other 2 visit types revealed opposite patterns of occurrence (Table 4). Although 48% of the U.S. visits could be characterized as biomedically intensive exchanges, this pattern accounted for only 18% of the Dutch visits ($\chi^2 = 20.4$; $P < .001$). In contrast, 50% of the Dutch visits were characterized as socioemotional, whereas the pattern represented only 10% of the U.S. sample ($\chi^2 = 37.9$; $P < .001$). Visit length was longer for each of the 4 visit types in the United States (means 15.8, 14.5, 19.3, and 12.5, respectively) compared to The Netherlands (means 8.6, 7.4, 11.0, and 9.5, respectively). Notably, the biopsychosocial visits represented the longest visit type in both the United States (19.3 min; SD, 10.3) and The Netherlands (11.0 min; SD,

Table 3. Percentage of Physician Behaviors in 4 Communication Patterns

	Exam-centered ($N = 46$)	Biointensive ($N = 64$)	Biopsychosocial ($N = 26$)	Socioemotional ($N = 59$)	F Value	*P* Value
Instrumental behavior, %						
Biomedical exchange	35	47	23	23	81.1	.000
Psychosocial exchange	6	8	24	7	39.0	.000
Partnership building	3	3	5	3	2.7	.048
Directive behavior	14	10	10	12	3.7	.013
Other	5	3	3	5	3.3	.021
Affective behavior, %						
Rapport building	22	16	19	38	83.2	.000
Showing concern and optimism	4	3	3	4	2.6	.054
Social talk	10	9	13	7	4.2	.006
Disagreements	0	1	0	0	0.9	.427
Proportion of visit devoted to the physical examination, %	47	17	20	19	78.0	.000
Length of visit in minutes	12.4	12.2	16.1	10.8	2.96	.05

Table 4. Distribution of Communication Patterns

	The Netherlands, %	United States, %	χ^2
Exam-centered	22	25	NS
Biomedically intensive	18	48	20.4*
Biopsychosocial	10	17	NS
Socioemotional	50	10	37.9*

* P < *.001.*
NS, not significant.

6.4). There were no statistically significant differences in verbal dominance within clusters between the 2 countries (F = 1.5; *df* = 1; *P* = .226).

Multiple variance analysis with visit length as the dependent variable and country and visit style as independent variables showed that both country (F = 40.92; *P* < .001) and visit style (F = 2.96; *P* < .05) had an independent influence on the length of the visit (adjusted R^2 = .224; F = 9.0; *P* < .001). No interaction effects were evident between country and visit style (F = 1.08; *P* = .36).

DISCUSSION

First, as anticipated, we found that U.S. visits were longer than comparable Dutch visits for patients with a common diagnosis of hypertension. While prior comparisons of length of visit reflected the general experience of primary care patients, we are unaware of any direct comparisons of visits for a common diagnosis. Further, the U.S. visits had longer physical exam segments than did comparable Dutch visits, although in both countries, the physical exam contributed to about a quarter of the total visit length.

The difference in communication dynamics in the 2 countries also was reflected in the visit's content and focus on instrumental and affective behavior. American doctors asked more questions and provided more information of both a biomedical and psychosocial nature, whereas Dutch physicians were far more likely to engage in affective exchanges, particularly those related to rapport building. In a parallel fashion, differences in patient communication also were evident. Dutch patients were less engaged in content-specific discussions of biomedical or psychosocial topics, but more active in expressing concerns or optimism than were U.S. patients. U.S. patients disclosed more information to their physicians both biomedically and psychosocially, largely in response to the higher number of questions asked of them, and the U.S. patients were given more information in these areas.

The style differences between the 2 countries were especially striking when communication patterns were constructed based on a cluster analysis of physician behaviors. The distribution of visit types was similar for the pattern that marked visits with exceptionally long physical exams, perhaps marking very complex physical health problems. Similarly, the visits characterized by use of the biopsychosocial pattern were equally distributed in the 2 countries. The 2 remaining patterns had distinct Dutch and American distributions. The most common pattern of visit in The Netherlands, accounting for 50% of visits, was characterized by a relatively high amount of socioemotional exchange; this consultation type was found in only 10% of the American consultations. In contrast, the dominant consultation type in the United States, representing 48% of visits, was characterized by biomedically intensive content. This visit type was found in only 18% of the Dutch visits. The U.S. pattern and distribution of visit types produced by the cluster analysis were largely parallel to findings from an earlier U.S. study.[28]

The nature of the U.S. system is quite different from that of The Netherlands, with relatively few of the study physicians working within a fixed system.[34] Indeed, U.S. patients see their primary care physicians less frequently than do Dutch patients; Dutch patients average 4 visits per year to GPs,[3] whereas U.S. patients made an estimated 1.5 visits per year to their primary care physicians.[42] Helped by the knowledge of having a longitudinal relationship with the patient, GPs in The Netherlands appear more likely to adopt a wait-and-see approach to medical interventions that are not evidence-based in specific situations.[43,44] There is some evidence that this approach has consequences for the length of the medical visit. For instance, a large Dutch audiotape study of 75 GPs with 1,048 patients found that physicians with medically intensive interviewing styles conducted longer visits than did physicians with less medically intensive interviewing styles.[45] The longer visits were not necessarily of higher quality, because many of the medical interventions undertaken were classified by experts as superfluous. It is reasonable to assume that in The Netherlands, where there is a strong professional awareness about the potential risks of doing too much, less emphasis will be placed on medical interventions. This is likely to result in shorter physical exams, a less medically intense interviewing style, and perhaps greater attention to rapport building and supportive listening. In contrast, U.S. physicians may be seen as guided by a strong professional awareness about the potential risks of doing too little, resulting in a greater emphasis on medical interventions, longer physical exams, and a more medically intense interviewing style. Although no definitive conclusions can be drawn, the speculation is consistent with our data and broad practice trends.

The predominately biomedical focus of the U.S. interviews in relation to the more socioemotional focus of the Dutch visits furthers insight into considerations of the patient-centered continuum. Although the purpose of the current analysis is not to offer a comprehensive definition of patient-centeredness, we would suggest that in the trade-off between biomedically intensive visits and socioemotional visits, it is the latter that are more reflective of physician receptivity and responsiveness to the expression of patients' concerns and needs.

Limitations of the Study

There are several limitations to the study. The data sets used for this analysis are quite old; the American data were collected in 1992, and the Dutch study was conducted in 1986. The most critical consideration regarding the data is not simply how old it is but rather whether changes in practice since the data were collected in the 2 countries are of sufficient magnitude and relevance to invalidate the conclusions drawn. The U.S. study sample average appears in line with recent estimates of U.S. hypertension-related visits of 17.2 minutes in nonprepaid systems and 16.5 minutes in prepaid visits.[46] In The Netherlands, the current study visit length was well within more recent estimates.[47]

A second question, apart from secular changes in length of visit, is the extent to which physicians' communication style may have changed over the years. Although there are few historical data to draw upon, it is not likely that physicians' styles of communication would have changed dramatically over this time period. Physicians' communication style is formed during medical education and in the first years of practice, and is resistant to change once habits are formed.[48] Indeed, an earlier cluster analysis of U.S. physicians' communication patterns conducted on data collected in 1984 showed a pattern very similar to that presented in the current study and collected 8 years later.[28]

In conclusion, our cross-cultural comparison of doctor–patient communication during medical visits suggests that there are distinct national medical cultures that have a profound influence on the nature of exchange during a typical medical visit. We anticipate future systematic international comparison studies to shed light on the microdynamics of the medical encounter and its therapeutic efficacy.

REFERENCES

1. Wilson A. Consultation length in general practice: a review. Br J Gen Pract. 1991;41:119–22.
2. Wilson A, McDonald P, Hayes L, Cooney J. Health promotion in the general practice consultation: a minute makes a difference. BMJ. 1992;304:227–34.
3. van den Brink-Muinen A, Verhaak PFM, Bensing JM, et al. The Eurocommunication Study. Utrecht: NIVEL; 1999.
4. Blumenthal D, Causino N, Chang YC, et al. The duration of ambulatory visits to physicians. J Fam Pract. 1999;48:264–71.
5. Wiggers JH, Sanson-Fisher R. Duration of general practice consultations: association with patient occupational and educational status. Soc Sci Med. 1997;44:925–34.
6. Roland MO, Bartholomew J, Courtenay MJ, Morris RW, Morrell DC. The "five minute" consultation: effect of time constraint on verbal communication. Br Med J Clin Res Ed. 1986;292:874–6.
7. Grieve S. Time availability in the consultation. Br J Gen Pract. 1990;40:167–8.
8. Howie JG, Heaney DJ, Maxwell M. Measuring quality in general practice. Pilot study of a needs, process and outcome measure. Occas Pap R Coll Gen Pract. 1997;i–xii:1–32.
9. Wilson AD. Consultation length: general practitioners' attitudes and practices. BMJ. 1985;290:1322–4.
10. Howie JGR, Porter AMD, Forbes JF. Quality and the use of time in general practice: widening the discussion. BMJ. 1989;298: 1008–10.
11. Bensing JM. Doctor-patient communication and the quality of care. An observation study into affective and instrumental behavior in general practice. Dissertation. Erasmus University Rotterdam. Utrecht: NIVEL; 1991.
12. Robinson JW, Roter DL. Counseling by primary care physicians of patients who disclose psychosocial problems. J Fam Pract. 1999; 48:698–705.
13. Anderson SO, Mattsson B. Length of consultations in general practice in Sweden: views of doctors and patients. Fam Pract. 1989;6:130–4.
14. Rashid A, Forman W, Jagger C, Mann R. Consultations in general practice: a comparison of patients' and doctors' satisfaction. BMJ. 1989;299:1015–6.
15. Howie JGR, Porter AMD, Heaney DJ, Hopton JL. Long to short consultation ratio: a proxy measure of quality of care for general practice. Br J Gen Pract. 1991;41:48–54.
16. Hull FM, Hull FS. Time and the general practitioner: the patient's view. J R Coll Gen Pract. 1984;34:71–5.
17. Morrell DC, Evans ME, Morris RW. The "five-minute" consultation: effect of time constraint on clinical content and patient satisfaction. BMJ. 1986;292:870–2.
18. Kaplan SH, Greenfield S, Gandek B, Rogers W, Ware JE. Characteristics of physicians with participatory decision-making styles. Ann Intern Med. 1996;124:497–504.
19. Ridsdale L, Carruthers M, Morris R, Ridsdale J. Study of the effect of time availability on the consultation. J R Coll Gen Pract. 1989; 39:488–91.
20. Knight R. The importance of list size and consultation length as factors in general practice. J R Coll Gen Pract. 1987;37:553–9.
21. Carr-Hill R, Jenkins-Clarke S, Dixon P, Pringle M. Do minutes count? Consultation lengths in general practice. J Health Serv Res Policy. 1998;3:207–13.
22. Anderson SO, Mattsson B. Features of good consultation in general practice: is time important? Scand J Prim Health Care. 1994;12: 227–32.
23. Mead N, Bower P. Measuring patient-centeredness: a comparison of three observation-based instruments. Patient Educ Couns. 2000;39:71–80.
24. Roter DL, Hall JA. Doctors Talking to Patients/ Patients Talking to Doctors: Improving Communication in Medical Visits. Westport, Conn: Auburn House; 1992.
25. Stewart MA. Effective physician-patient communication and health outcomes: a review. Can Med Assoc J. 1995;152:1423–33.
26. Stewart M, Brown JB, Weston WW, McWhinney IR, McWilliam CL, Freeman TR. Patient-Centered Medicine: Transforming the Clinical Method. Thousand Oaks: Sage; 1995.
27. Little P, Everitt H, Williamson I, et al. Preferences of patients for patient centered approach to consultation in primary care: observational study. BMJ. 2001;322:468–72.
28. Roter DL, Stewart M, Putnam SM, Lipkin M, Stiles W, Inui TS. The patient-physician relationship. Communication patterns of primary care physicians. JAMA. 1997;277:350–6.
29. Mishler EG. The Discourse of Medicine: Dialectics of Medical Interviews. Norwood, NJ: Ablex; 1984.
30. Roter DL. The enduring and evolving nature of the patient-physician relationship. Patient Educ Couns. 2000;39:5–15.
31. Engel GL. How much longer must medicine's science be bound by a seventeenth century world view? In: White K, ed. The Task of Medicine: Dialogue at Wickenburg. Menlo Park, Calif: The Henry J. Kaiser Family Foundation; 1988.
32. McWhinney I. The need for a transformed clinical method. In: Stewart M, Roter D, eds. Communicating with Medical Patients. Newbury Park, Calif: Sage; 1989.
33. Suchman AL, Markakis K, Beckman HB, Frankel R. A model of empathic communication in the medical interview. JAMA. 1997; 277:678–82.
34. Starfield B. Health systems' effects on health status–financing vs the organization of services. Am J Public Health. 1995;85:1350–1.

35. Verhaak PFM. Detection of psychologic complaints by general practitioners. Med Care. 1988;26:1009–20.
36. Roter DL, Hall JA, Kern DE, Barker R, Cole KA, Roca RP. Improving physicians' interviewing skills and reducing patients' emotional distress. Arch Intern Med. 1995;155:1877–84.
37. Roter D, Larson S. The Roter Interaction Analysis System (RIAS): utility and flexibility for analysis of medical interactions. Patient Educ Couns. 2002;46:243–51.
38. Bensing JM, Dronkers J. Instrumental and affective aspects of physician behavior. Med Care. 1992;30:283–97.
39. Ong LML, Visser MRM, Kruijver IPM, et al. The Roter Interaction Analysis System (RIAS) in oncological consultations: psychometric properties. Psychooncology. 1998;7:387–401.
40. Roter D, Hall J, Katz N. Relations between physicians' behaviors and patients' satisfaction, recall, and impressions: an analogue study. Med Care. 1987;25:399–412.
41. Hall J, Roter D, Katz N. Task versus socioemotional behaviors in physicians. Med Care. 1987;25:437–51.
42. Forrest CB, Whelan E. Primary care safety net delivery sites in the United States. JAMA. 2000;284:2077–83.
43. Grol R. To Heal or to Harm. The Prevention of Somatic Fixation in General Practice. London: Royal College of General Practitioners; 1981.
44. LHV (Dutch National Organization of General Practitioners). Basic Job Description for the General Practitioner. Utrecht: LHV; 1994.
45. Mokkink HGA, Schellekens CMAM, Tielens VCL. Consultduur in de huisartspraktijk. Een studie naar de consultduur in relatie tot patiënt- en klachtkenmerken, en de kwaliteit van het handelen van de huisarts. [Consultation length in general practice, related to patient and complaint characteristics and quality of care]. Huisarts en Wet. 1993;36:285–90.
46. Mechanic D, McAlpine DD, Rosenthal M. Are patients' office visits with physicians getting shorter? N Engl J Med. 2001;344:198–204.
47. van den Brink-Muinen A, Verhaak PFM, Bensing JM. The EUROCommunication Study. An International Comparative study in Six European Countries on Doctor-Patient Communication in General Practice. Utrecht: NIVEL; 1999.
48. Hulsman RL, Ros WJG, Winnubst JAM, Bensing JM. Teaching clinically experienced physicians communication skills. A review of evaluation studies. Med Educ. 1999;33:655–68.

◆