

Cross-Cultural Aspects of Physician-Patient Communications Patterns

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INTRODUCTION

In recent years, there has been considerable discussion and interest in the therapeutic and psychological importance of the physician-patient relationship. Medical literature has often discussed the subject of physician ability to relate optimally and appropriately to patients.^{1,2} Many writers have cited a failure of post-Flexnerian physicians to develop adequate interpersonal skills in

patient care.³ Similarly, authors have cited the consequences of failure to communicate adequately and appropriately in the physician-patient encounter: deterioration in humanistic qualities of patient care,^{4,5} decreased patient satisfaction,⁶ and decreased patient compliance.⁷

LITERATURE REVIEW

One aspect of the doctor-patient relationship which has received considerable attention is the way in which doctors and patients communicate. Several theoretical and anecdotal articles have attempted to analyze aspects of this communication process and have suggested ways in which physician-patient communication patterns might be modified and improved. From this viewpoint, several aspects of doctor-patient communication have been explored, including the importance of self-development and insight on the part of the physicians,⁸ the relevance of the relationship itself to comprehensive diagnosis,⁹ negative and positive factors in the relationship,¹⁰ and finally its therapeutic qualities.¹¹

Communication between doctor and patient has also become a major focus in the training of medical students and residents. Several training packages and courses in communication have been

This article reports findings of a study which utilized audiotapes to examine interaction patterns between ten white Anglo physicians (three of whom spoke Spanish) and 61 Hispanic and non-Hispanic patients. Using a newly developed interaction analysis instrument, the study examined four scales—rapport, patient health beliefs, therapeutic regimen, and patient feedback—and two additional categories—quality of explanation of medical regimen and sensitivity to patient modesty. Findings in the analysis of patient-doctor interactions were compared to variables of patient understanding and physician perception of the interview. Patient charts were also examined to determine diagnosis, prescribed medical regimen, and follow-through on return appointments.

In analyzing the patient-doctor interactions, the interview raters perceived physicians as performing significantly better on the dimensions of rapport, quality of medical regimen explanation, and ability to elicit patient feedback with the non-Hispanic and English-language patients than with the Hispanic and Spanish-speaking patients. Also, the interaction of factors of language, translator and ethnicity appeared to have a highly significant influence on whether the medication prescriptions were understood by the patient. There were no significant differences related to ethnicity in terms of patient understanding of their diagnosis, or of the cause of their health condition, or in terms of their return for follow-up appointments.

developed, some based on psychological^{12,13} and some on linguistic and anthropological theory.^{14,15} These emphasize a wide variety of skills, ranging from how to develop comfort with emotionally stressful topics, how to avoid jargon, how to facilitate initial rapport and how to increase patient retention of information.

Finally, a few seminal studies have examined actual interactions between physicians and patients and have related these to measures of patient satisfaction and compliance. These studies indicate that patients are more satisfied with their physicians when they are given and retain more information about their illnesses;¹⁶ that there is a strong relationship between patients' satisfaction with consultation and their following the advice they are given;¹⁷ and that the amount of patient satisfaction, and resultant compliance, is correlated with the amount of positive affect communication during the interview.¹⁸

Mechanic¹⁹ points out two major dimensions in physician communications, both of which are considered in the present study: (1) physician effort to instruct the patient in a clear and explicit manner (measured in this study through the quality of presentation of the therapeutic regimen); and (2) physician effort to motivate the patient, through eliciting patient feedback to ensure that instructions are clear and that the patient has interpreted them correctly (measured through the patient feedback scale).

Thus, communication patterns are generally believed to comprise an important component of the doctor-patient relationship. However, other significant factors exist as well. One of these is cross-cultural factors. There are numerous articles in the literature describing relationship problems between Mexican-American patients who often have culture-influenced ideas of disease and treatment and their white physicians,²⁰⁻²² and between black patients and white physicians, who tend to develop mutually destructive roles (i.e., master-servant, helper-dependent).^{23,24}

In terms of the Mexican-American patient population, several authors have put forward the hypothesis that because

of a cultural emphasis on home cures, patent medicines, and a more bio-spiritual explanation of disease, individuals closest to Mexican culture (in terms of generation in the U.S., number of years spent in the U.S., and language of preference) are suspicious of and distrust modern health care.^{21,25} However, research in this area²⁶ does not tend to support this hypothesis; rather, it indicates no relationship between closeness to Mexican culture and hostility to medical treatment.

Queseda²⁷ emphasized the importance of language as a determinant of the cognitive structure of the individual, and as an illustrative example, proposed the dependence-*dignidad* paradox among Mexican-American patients attempting to interact with an Anglo doctor. According to Queseda, the Spanish-speaking patient will expect simultaneously more paternalistic and more respectful treatment from his doctor than is customary for an Anglo-American doctor to provide; the resultant discordant expectations may produce a disintegration of the therapeutic relationship.

Queseda points out, as does Satcher²³ for a black patient population, that such communication problems in cross-cultural medicine may lead to significant compliance problems. On the positive side, however, it has been illustrated that a simple educational procedure of both lower-class psychiatric patients and residents can lead to significant increases in patient follow-up,²⁸ thus suggesting that research findings in this area can be incorporated into training programs for physicians to improve their relationships with culturally diverse patients.

To date, however, the cultural aspects of the physician-patient relationship have received little empirical attention, particularly in examining the influence and effect of cultural factors on communication styles, despite the evidence that cultural expectations influence medical care.

STATEMENT OF PURPOSE

Utilizing existing methodologies for analyzing physician-patient communications, the attempt of this study was to compare patterns of communication between white Anglo physicians and

two patient groups. One patient group represented a Spanish-surname population of low socioeconomic and medically underserved status. The other was an English-speaking white patient population, also of low socioeconomic and medically underserved status.

The study was conducted to achieve several goals. The first was to begin to develop an interaction analysis instrument with acceptable interrater reliability which could be successfully used in coding doctor-patient interactions. The second goal was to perform a comparative analysis of doctor-patient communication patterns between culturally similar and culturally dissimilar doctor-patient dyads. The purpose of this analysis was to determine whether verbal interaction patterns between the two groups varied, and if so, whether they varied in a positive or a negative direction. In particular, based on findings of the literature previously cited, it was decided to emphasize variables such as physician rapport with patient, quality of physician explanation of the therapeutic regimen, and physician ability to elicit patient feedback.

Since one of the most salient expressions of culture is through the specific health beliefs of the patient, it was felt important to assess this dimension of doctor-patient interaction, and to determine whether the ability of the physician to effectively assess the patient's health belief system was adversely affected by patient ethnicity or vice-versa. Finally, based on anecdotal information from a variety of patient and nursing staff sources, it was felt that a special question on physician sensitivity to patient modesty might be particularly important in evaluating the overall quality of the doctor-patient interview.

Since compliance emerges as such a major issue in medical treatment, it was also decided to examine whether two aspects of compliance (return for follow-up appointments and patient inconsistencies with prescribed medical regimen) could be related to patient ethnicity.

The study also attempted to determine physician perception of the patient's response to the interview, and to compare this perception with that of inde-

pendent raters. The study further assessed whether there was a relationship between any of the physician perception variables and any of the rater variables evaluating the quality of the interview.

Finally, the study examined patients' understanding of their current health condition and instructions received from their physician. These patient variables were then related to patient ethnicity to determine whether Spanish-surname patients would have a poorer grasp of the cause of their physical condition or a poorer understanding of instructions received from physicians than would Anglo patients.

It was hoped that this research would yield important information about whether physicians used different styles of communication with patients culturally similar and patients culturally dissimilar from themselves, whether such differences could be related to patients' understanding of their health condition and/or their medical instructions, to specific aspects of patient compliance, or related to physician perception of patient response to the interview. A major value of the study was seen in its relevance to possible behavioral and/or attitudinal deficits in the communication styles of physicians when interacting with a variety of patient populations. Eventually, it was hoped that such information could provide a basis for the development of a training program aimed at improving communication patterns between physicians and patients.

METHODOLOGY

Sixty-one regularly scheduled patient interviews with both Spanish and non-Spanish surname individuals were audiotaped over a six-month period. Audiotapes were then analysed using an interaction analysis instrument derived from the work of Bales,²⁹ Hess,³⁰ Flanders,³¹ and Pena.³² Development of the interaction analysis instrument was the combined work of the authors, the project research assistant, and extensive consultation with Spanish-speaking nurses, social workers, and other health care personnel.

In its initial format, the instrument consisted of eight "scales," each measuring several items: establishing rapport,

patient health belief system, physical examination, diagnosis, presentation of the therapeutic regimen, physician language, feedback techniques, and physician attitude. Subsequently, because of rater disagreement, the scales of physical exam, diagnosis, language, and attitude were discarded. Interrater reliability for the remaining scales using the Spearman-Brown correlation coefficient is reported in Table One.

In addition, two specific items were added to the instrument: sensitivity to issues of modesty and overall quality of explanation of the therapeutic regimen (see Table One). Internal consistency for each rater was high, with an alpha of .84 for Rater One, and an alpha of .93 for Rater Two. After refinement of the

Scale/Item	r	p
Rapport	.50	.01
Patient Health Beliefs	.52	.01
Therapeutic Regimen	.61	.002
Overall Quality of Explanation of Therapeutic Regimen	.53	.01
Feedback	.53	.01
Modesty	.55	.01

instrument and achievement of satisfactory reliability, Rater Two's codings were used in all statistical calculations.

The rapport scale consisted of initial physician demeanor and use of psychosocial questions. The health belief scale consisted of assessment of the patient's health belief system, physician evaluation of the patient's health belief system, and physician knowledge of culture-specific patient health beliefs. The therapeutic regimen scale consisted of physician use of appropriate language, assessment of patient comprehension, attempt to incorporate medical regimen into home treatment, exploration of impact of regimen on the patient's family, and sensitivity to patient's need for tangible treatment. The feedback scale consisted of providing the patient an opportunity to ask questions, asking the patient to repeat instructions, encouraging patient self-disclosure, and asking about patient expectations for treatment.

In addition to audiotape analysis, physicians and patients each completed a questionnaire assessing aspects of the interview. The physician questionnaire assessed physician perception of the patient's understanding of instructions, likelihood of the patient following those instructions, likelihood of the patient keeping a follow-up appointment, extent to which the patient's needs were satisfied by the interview, and overall reaction of the physician to the interview as compared to other medical interviews he had performed.

Due to a sensitive political climate in the community where this study was conducted, it was felt indiscreet to directly assess patient satisfaction with the interview. Therefore, the patient questionnaire assessed only patient understanding of the cause of his illness or health condition, understanding of the diagnosis, and understanding of prescribed medications and other physician instructions. Accuracy of patient responses in these areas was later checked against medical records.

SUBJECTS

Physician subjects were ten male, Anglo doctors, in the second or third year of a three-year residency program in family medicine. Three of these doctors spoke Spanish as a second language. Each doctor interviewed five or six patients for the purposes of this study.

Patient subjects consisted of 50 female and 11 male patients, 22 of whom were identified as having a Spanish surname, and 39 of whom were identified as having a non-Spanish surname. Although we discriminated our two patient subsamples solely on the basis of surname, it may be important to understand that the community clinics in this study service a geographical area populated predominantly by undocumented workers from Mexico and by first generation chicanos. Of the 61 interviews conducted, 15 were in Spanish, and 46 in English, suggesting that seven of the Spanish-surname subjects were interviewed in English. Forty-four of the interviews were conducted at Clinic I, which had no Spanish-speaking physicians, and 17 at Clinic II, which had all three of the Spanish-speaking physicians included in the physician

sample.

Demographically, there were no significant differences between Hispanic and non-Hispanic patient subjects.

Certain demographic variables, however, predictably showed significant differences between the Hispanic and non-Hispanic samples. Religious preferences successfully discriminated between the two groups ($X^2 = 32.5$, $df = 4$, $p < .001$), with the majority of Hispanic respondents being Catholic, and the majority of non-Hispanic respondents listing themselves as either other Christian (including Protestant) or none. Birthplace also separated the two groups, ($X^2 = 36.2$, $df = 2$, $p < .001$) with most of the Hispanic group having been born in Mexico and the majority of the non-Hispanic group having been born in the U.S. Similarly, generation in the U.S. proved to be significantly different for the two groups ($X^2 = 12.6$, $df = 2$, $p < .002$) with Spanish surname respondents tending to list themselves as first generation or less and non-Spanish surname respondents tending to list themselves as more than third generation.

RESULTS

Interview Ratings. Raters coded each tape according to a six-point scale on the various dimensions mentioned earlier. In general, mean ratings fell slightly below the median score of 3.5. The mean score for rapport was 3.3; for patient health beliefs, 2.9; for therapeutic regimen, 3.3; for quality of explanation of the therapeutic regimen, 3.8; for modesty, 1.8; and for feedback, 3.1. Overall, raters appeared to feel these were adequate, but not exceptionally good interviews, somewhat insensitive to patients' concerns with modesty; and slightly better than average in their

TABLE 2
Mean Values for all Scale/Items on a Rating Scale with a Range 1-6

Scale/Item	Mean Values
Rapport	3.3
Patient Health Beliefs	2.9
Therapeutic Regimen	3.3
Overall quality of explanation of therapeutic regimen	3.8
Feedback	3.1
Modesty	1.8

ability to explain the therapeutic regimen to their patients (see Table Two).

Findings Related to Patient Ethnicity and Language of Interview. Significant differences were discovered between the two patient groups and the degree of rapport established by the physician as rated by the two independent coders. A one-way ANOVA showed that physicians were perceived to establish rapport significantly better with the non-Hispanic than with the Hispanic patients ($p < .003$). Similarly when Spanish and non-Spanish language interviews were compared along the dimension of rapport, English-language interviews were rated as having significantly more physician-patient rapport ($p < .05$).

While the therapeutic regimen scale itself was not related to ethnicity, when the two groups were compared according to the quality of explanation of the therapeutic regimen, again the non-Hispanic group was rated significantly higher ($p < .05$). Similarly, English language interviews were rated significantly higher ($p < .04$) than Spanish language interviews in terms of the quality of the physician's explanation.

No feedback differences in terms of ethnicity *per se* emerged; however, when Spanish and English language interviews were compared on this dimension, the English language were rated significantly higher in terms of the quality and quantity of feedback elicited by the physician from the patient ($p < .002$). These findings are summarized in Table Three.

A more complicated finding had to do with a measure labeled medication inconsistencies. This measure had to do with the agreement/disagreement of the patient's report of prescribed medications with actual medications recorded in the patient chart. This measure was not related to patient ethnicity *per se*. However, when a discriminant analysis was performed, five factors appeared to predict medication inconsistencies ($X^2 = 20.1$; $df = 5$, $p < .001$). These factors accounted for medication inconsistencies in the following order: (1) Language (with Spanish being a better predictor of medication inconsistencies than English); (2) clinic (with Clinic I being a better

TABLE 3
The Relationship of Patient Ethnicity/Language to Raters' Perception of Physician Rapport, Quality of Explanations, and Ability to Elicit Feedback from Patients

Scale/Item	Patient Ethnicity/ Language	F	df	p
Rapport	Ethnicity	9.8	1	.003
	Language	3.7	1	.05
Explanation of Therapeutic Regimen	Ethnicity	3.9	1	.05
	Language	4.6	1	.04
Feedback	Ethnicity	1.8	1	N.S.
	Language	10.8	1	.002

predictor of medication inconsistencies than Clinic II); (3) interpreter (with Spanish interviews being a better predictor of medication inconsistencies than interpreted interviews); (4) sex (with female being a better predictor of medication inconsistencies than male); and (5) ethnicity (with Hispanic being a better predictor of medication inconsistencies than non-Hispanic).

Thus, in terms of predicting medication inconsistencies, ethnicity itself did not appear to be a powerful predictor. However, the interaction of language, clinic, and translator definitely had a significant influence on whether or not the medication prescriptions were understood by the patient. The influence of language and, by extension, of translator, is obvious and needs no further elaboration. The difference between clinics can only be explained speculatively. The clinic finding may be related to the fact that since Clinic II has both more Spanish-speaking doctors and more translators, there was a higher likelihood of Spanish-speaking patients at this clinic receiving a more understandable presentation of their medications.

No other significant findings related to patient ethnicity of patient language emerged in this study. The relationship between patient awareness of appropriate diagnosis and language and ethnicity was not significant. Similarly, returning for follow-up appointments,

or clarity in understanding that a follow-up appointment had been assigned did not appear to be related to variables of ethnicity or language, or other combinations of independent variables as analysed by a discriminant analysis. Interestingly, physician sensitivity to the patient's health belief system was not significantly related to ethnicity. Apparently physicians in this sample were not less sensitive to the health beliefs of their Hispanic as compared to their non-Hispanic patients, a finding possibly accounted for by the fact that the residency program in which these doctors were training places considerable emphasis on awareness of Mexican folk medicine.

Further, the therapeutic regimen scale (on which raters evaluated the physician's overall presentation of the therapeutic regimen to the patient) also was not related to patient ethnicity. It appeared, in terms of presentation of the therapeutic regimen that it was only the quality of the explanation *per se* which discriminated the Hispanic from the non-Hispanic interviews. Factors such as attempts to incorporate the medical regimen into home treatment, exploration of the impact of the regimen on the patient's family, and sensitivity to the patient's need for tangible treatment did not appear to be significantly different for the Hispanic interviews as compared to the non-Hispanic interviews.

Finally, modesty ratings indicated that physicians in this sample were not more insensitive to the modesty of Hispanic than non-Hispanic patients, despite some anecdotal evidence to the contrary.

Other Findings of Interest. While none of the physician variables related to their perceptions of patient response to interviews was significantly related to patient ethnicity, some findings in this area are worth reporting briefly. First, there was a significantly positive correlation between physician's perception of patient understanding of instructions and rater evaluation of the quality of the physician's explanation of the therapeutic regimen. Physician perception that the patient would follow instruc-

tions, that the patient would keep his/her appointment, and that the patient's needs and questions were satisfied by the interview were also all positively correlated to this variable of explanation of therapeutic regimen (see Table Four). Physician perception of patient

TABLE 4
Correlation Coefficients showing the Relationship between Physician Perception of Patients and Raters' Perception of Quality of Physician's Explanation of Therapeutic Regimen.

Physician Perception	r	p
Patient Understanding of Instructions	.40	.002
Patient Ability to Follow Instructions	.44	.001
Patient Ability to Keep Follow-up Appointment	.48	.001
Patient needs, questions satisfied by interview	.34	.008

satisfaction was also correlated with raters' evaluation of the rapport established by the physician during the interview ($r = .42$; $p < .005$). Finally, there was a modest correlation between physician perception of the overall quality of the interview and raters' evaluation of physician sensitivity to sexual concerns of the patient ($r = .44$; $p < .002$).

Descriptively, physician subjects felt that patients had understood their instructions, would follow these instructions, and would keep their follow-up appointments. Overall, they felt patients to be fairly satisfied with the interviews and felt that the interviews themselves had compared favorably with other medical interviews they had

TABLE 5
Mean Scores of Physicians' Perceptions of Patient Response to Interview Rated on a Six-Point Scale

	Mean	Standard Deviation
Physician Perception		
Patient Understood Instructions	4.9	.99
Patient will follow Instructions	4.6	1.1
Patient will keep follow-up Appointment	5.3	.99
Patient needs Satisfied by Interview	4.5	1.0
Overall Interview Rating	4.5	.99

done (see Table Five).

Information from patient questionnaires did not yield any significant results. However, it is worth reporting these findings descriptively for the insights they provide into this particular patient sample.

Of 59 respondents, 18 had come for a routine pregnancy check, 13 for a new physical complaint, 11 for a routine visit for themselves, and 10 for a follow-up on a previous appointment. The remainder were there for miscellaneous concerns. Slightly over half (54.6 percent) had been treated previously for the condition which they were currently presenting, while for the remainder this was the first time they had been seen for this particular symptom. Of 50 respondents, eight did not know the cause of their conditions, five gave the diagnosed reason, and 14 gave a reason which was unrelated to information on their medical charts. The remaining 23 did not present with discernible physical illness. Thirty-five of the respondents described themselves as being in good health. Twenty described their health condition as it was represented in their medical chart; and three reported not knowing what was wrong with them. As mentioned earlier none of these variables was related to patient ethnicity.

In terms of the instructions given to the patients by their physicians as reported by the patients themselves, the following was discovered: thirty-six patients were prescribed a specific medication, while 22 were not. Twenty-three were given prescriptions regarding diet, smoking, or alcohol. Eleven were given instructions about rest habits, 16 about physical activities. Forty-eight were given follow-up appointments. None of these was related to patient ethnicity. However, on an open-ended question asking patients to report any other instructions received from the physician, English-speaking patients reported receiving significantly more instructions than did Spanish-speaking patients ($X^2 = 4.1$, $df = 1$, $p < .04$), suggesting either that physicians went into greater detail with their English-language patients or that English-language patients had better recall and understanding of

these more detailed instructions.

A chart review revealed that in terms of patient perceptions of physician instructions regarding diet, alcohol, smoking, rest habits, and physical activity, over 90 percent of these were consistent with notations in the patient chart. Patient reports of medications prescribed by the physician were consistent with their charts 82.5 percent of the time, and 77.8 percent of the patients were accurate in terms of reporting follow-up appointments. Interestingly enough, of patients scheduled for a follow-up appointment, 23.8 percent did not fulfill this appointment. As mentioned earlier, however, failure on follow-through did not appear to be

related to patient ethnicity.

DISCUSSION

As far as the overall quality of the interviews was concerned, both raters and physicians tended to agree that these were slightly above average interviews, with the physicians rating themselves as slightly higher than did the independent raters. According to rater perception, physicians appeared to be significantly less able to establish rapport with their Hispanic and Spanish-speaking patients, appeared to provide significantly poorer explanations of the therapeutic to the Hispanic and Spanish-speaking patients, and were significantly less able to stimulate feedback from their Spanish-language than from their

English language patients. It also appeared that patient misunderstanding of prescribed medications related to language and ethnic factors, though the relationship was a complex one.

One other interesting finding was that physicians who perceived themselves as effectively presenting information to the patient and adequately answering patient questions were perceived in a similar fashion by independent raters. Similarly, the positive correlation between physician perception of patient satisfaction and rater perception of physician ability to establish rapport also suggests that physicians in this sample were fairly good judges of the quality of the interpersonal dimension in these interviews.

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