Interpersonal Processes of Care in Diverse Populations

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P ERSONS OF LOWER SOCIOECONOMIC STATUS (SES) OR from racial and ethnic minority groups have substantially poorer health and more health risk factors than their counterparts (Bunker, Gomby, and Kehrer 1989; Pamuk, Makuc, Heck, et al. 1998; Winkleby, Kraemer, Ahn, et al. 1998). Various explanatory hypotheses have been proposed, ranging from differential social, environmental, economic, and lifestyle factors to differences in access to care (Bunker, Gomby, and Kehrer 1989; Adler, Boyce, Chesney, et al. 1993). Less research has been done on the role of the quality of medical care.

Quality of care is defined by the Institute of Medicine as the degree to which health services increase the likelihood of desired health outcomes and are consistent with current professional knowledge (Institute of Medicine 1990). Donabedian (1966) defines it in terms of structure (properties of care settings), process (interactions between patients and providers), and outcome (states of individuals and populations that are attributable to antecedent health care). Technical process, which is

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often distinguished from interpersonal process (Tarlov, Ware, Greenfield, et al. 1989; Davies and Ware 1991), includes tests, treatments, and technical competence in performing diagnostic and therapeutic procedures (Donabedian 1966; 1992). Interpersonal process is defined as the social–psychological aspects of the patient–physician interaction, such as communication, friendliness, explanations, and being caring and sensitive to patients' needs (Cleary and McNeil 1988).

Evidence is accumulating that technical care varies by racial and ethnic group (Wenneker, and Epstein 1989; Escarce, Epstein, Colby, et al. 1993; Todd, Samaroo, and Hoffman 1993; Yedidia 1994; Fuentes-Afflick, Korenbrot, and Greene 1995; Gornick, Eggers, Reilly, et al., 1996; Kuppermann, Gates, and Washington 1996; Carlisle, Leake, and Shapiro 1997), by socioeconomic status (Greenberg, Chute, Stukel, et al. 1988; Burstin, Lipsitz, and Brennan 1992; Manson-Siddle and Robinson 1998), and by both (Klabunde, Potosky, Harlan, et al. 1998). For example, various studies have found higher rates of cardiac procedures in whites, compared with African Americans, after controlling for disease severity. This was true of both angioplasty and coronary artery bypass surgery (Maynard, Fisher, Passamani, et al. 1986; Peterson, Shaw, DeLong, et al. 1997) and referral for cardiac catheterization (Schulman, Berlin, Harless, et al. 1999).

There has not been much research on the mechanisms by which these differences in health and technical processes occur, although some researchers are raising the question (Yedidia 1994). One emerging hypothesis is that the disparities may be attributable to differences between minorities and their counterparts in the interpersonal processes between patients and clinicians (Kuppermann, Gates, and Washington 1996). If physicians make unilateral decisions, or if they fail to account for patients' cultural beliefs and preferences, then patient adherence to instructions about self-care and drug dosage might be poor, leading to worse health outcomes (Wenneker, and Epstein 1989; Escarce et al. 1993). When informational processes are improved, the results may be better patient outcomes: patients gain more knowledge, achieve a sense of empowerment, garner the information they need to manage their own health, and feel more motivated and capable of managing their illness.

Our central purpose in writing this paper is to present and validate, from the perspective of patients, a conceptual framework of interpersonal processes that distinguishes specific components. The framework

is designed for all segments of the population, but it incorporates issues that are important to minority or low-SES groups. We test the validity of the proposed framework through analysis of a self-report instrument for measuring these processes. Our long-term goal is to facilitate understanding of how the quality of interpersonal processes of care might affect technical processes and outcomes of care in diverse populations, and we propose that, ultimately, such indicators be routinely included in quality assessment efforts.

Limitations of Current Approaches

Current methods of assessing interpersonal processes are inadequate for examining the effect of these processes on technical processes of care and their outcomes. This inadequacy stems from three major sources. First, although the concept of interpersonal processes is well known, it is typically considered as a single, mostly undifferentiated, construct. For example, commonly used patient satisfaction instruments combine interpersonal processes items into one or two summary measures at most, such as satisfaction with communication and interpersonal care (MacKeigan and Larson 1989; Davies and Ware 1991). Even within typical unidimensional definitions, questions vary considerably across instruments, suggesting that there is no widely accepted measurement definition of interpersonal processes. Information about which components of interpersonal interactions affect technical process and outcomes would permit quality improvement efforts to focus specifically on these components (Healy, Govoni, and Smolker 1995). Furthermore, concrete provider behaviors are more likely to change if specific aspects are directly linked to good and bad outcomes of care (Inui, and Carter 1985; Cleary, Edgman-Levitan, Roberts, et al. 1991) or to quality ratings.

A second, and more important, limitation of current approaches is that few measures of interpersonal processes (e.g., satisfaction with interpersonal style) adequately reflect the issues of minority or vulnerable populations, primarily because they were not developed with these groups in mind. Although many concepts are salient to everyone (e.g., adequacy of explanations, respect), other concepts of special importance to minority or low-SES subgroups are seldom included (e.g., cultural sensitivity, discrimination). Further, important issues, like respectfulness, are usually defined in global terms (e.g., Doctors treat you with

respect). To define more clearly how our target groups view concepts like respect, we need to reflect their specific experiences: Do clinicians talk in front of them as if they were not there (Cleary et al. 1991)? Do clinicians address them by the name they prefer? One exception to this limitation is the Consumer Assessment of Health Plans Study (CAHPS), whose goal is to evaluate quality of care from the consumer perspective for use by consumers, employers, and other purchasers (Cleary and Edgman-Levitan 1997; Crofton, Lubalin, and Darby 1999). The CAHPS survey includes some questions about interpersonal processes that are relevant to vulnerable patients (e.g., trouble communicating because of language, frequency of having an interpreter if needed) in the Medicaid supplement (Westat Inc. 1996).

A third shortcoming is that most measures of interpersonal processes ask about patient satisfaction with these processes rather than inquiring about what actually occurred. Such subjective evaluations of process are based on patients' expectations and are difficult to interpret in terms of improving quality (Cleary and Edgman-Levitan 1997; Cleary 1998). Information about what actually happened is necessary for understanding the mechanisms by which minority or low-SES patients receive poorer technical care or have poorer health outcomes and for monitoring and improving quality of care (Cleary and Edgman-Levitan 1997; Cleary 1998). The CAHPS survey and the Picker Institute scales (Picker Institute 1999) were designed explicitly to obtain reports of processes that occurred during medical visits.

Conceptual Framework of Interpersonal Processes of Care

We begin by differentiating interpersonal processes of care into precise components. Our framework is based on the literature about the patient–clinician relationship, concepts and measures of quality of care and satisfaction with interpersonal processes, extensive clinical experience with minority and low-SES populations, and qualitative studies of the interpersonal experiences of ethnically diverse patients. We distinguish three dimensions, each with multiple domains: communication, decision making, and interpersonal style (table 1). Most of the domains are not "new"; however, by establishing clear definitions of the constructs to be measured (table 2), this framework represents a step toward

TABLE 1
Conceptual Framework of Interpersonal Processes of Care

1. Communication	2. Decision making	3. Interpersonal style
General clarity Elicitation of, and responsiveness to, patient problems, concerns, and expectations Explanations of: • Condition, progress, prognosis • Processes of care • Self-care (general, medications) Empowerment	Responsiveness to patient preferences regarding decisions Consideration of patients' ability and desire to comply with recommendations	Friendliness, courteousness Respectfulness Discrimination Cultural sensitivity Emotional support, reassurance

advancing the development of an adequate instrument. These constructs are clearly interrelated, but they are hypothesized to be distinct aspects of care.

Communication

Communication is a highly plausible source of difficulty in achieving optimal technical care and health outcomes for minority or low-SES patients, owing to language, educational, and cultural differences between clinicians and patients. Although communication is an essential component of the physician's role (DiMatteo 1998), it is often the aspect of care with which patients are least satisfied (Aharony and Strasser 1993). Cleary and McNeil (1988, 29) note that "accurate and complete communication between a physician and a patient is often a necessary condition for the provision of technical care."

General Clarity of Communication

General clarity is the foundation upon which more specific aspects of the communication are built. General clarity includes the clinician's

TABLE 2

Definitions of Interpersonal Processes of Care, Item Stems for Final Scales, and Sources of Final Item Stems

Concept: domain and definition	Item content[a]	Sources of items or item themes
Communication: general clarity: Basic ability to communicate; language ability of clinician when patient does not speak English well; use of interpreter for those with language differences: clinicians match level of language to patients' ability to understand, use little medical jargon, speak clearly and slowly enough for patients to understand, and determine that patients understand.	1-Use medical words that you did not understand; 2-how often did you have trouble understanding doctors at this clinic because they spoke too fast?	1-Adapted Marshall et al. 1993; Webster 1989; 2-adapted Wissow et al. 1994
Communication: elicitation of and responsiveness to patient problems, concerns, and expectations: Clinicians generally take enough time to elicit most important concerns, help patients feel comfortable enough to discuss concerns, ask about concerns if not volunteered, listen carefully and pay attention without being distracted, indicate they are aware of patient's concerns, and take concerns seriously.	1-Give you enough time to say what you thought was important; 2-listen carefully to what you had to say; 3-ignore what you told them; 4-take your concerns seriously	1-Adapted Marshall et al. 1993; 2-adapted Marshall et al. 1993; DiMatteo and Hays 1980; Westat Inc. 1996; Webster et al. 1989; 3-Marshall et al. 1993, Marshall and Hays 1994; 4-adapted Commonwealth 1995; DiMatteo and Hays 1980; Welch (personal communication)

Communication: explanation of condition, progress, and prognosis: Information is provided to patients (and their families) about their condition, changes in condition, and prognosis. Written information is provided. Test results are explained in terms of what they mean for the patient's condition, diagnosis, and prognosis.	1-Give you enough information about your health problems; 2-make sure you understood your health problems	1-Adapted Dawson 1991; McCusker 1984; 2-adapted Commonwealth 1995; Webster 1989
Communication: explanation of processes of care: The purpose of technical processes of care is explained (tests, procedures, treatments, therapies, referrals, and follow-up visits); also what to expect when receiving them (e.g., pain, discomfort, possible side-effects). During examinations, clinicians orient patients to what they are doing next. For complex information, clear instructions are provided.	1-Explain why a test was being done; 2-explain how the test was done; 3-tell you what they were doing as they examined you; 4-how often did you feel confused about what was going on with your medical care because doctors at this clinic did not explain things well?	1-Adapted Marshall et al. 1993; Cleary et al. 1991; 2-new; 3-adapted DiMatteo and Hays 1980; Webster 1989; 4-new
Communication: explanation of self-care: Information is provided to patients and their families or caregivers on how to take care of themselves at home to promote recovery or optimal health and on self-management behaviors they should practice. Information about medications is provided, including the medication dose and schedule, how to monitor symptoms, when to call the doctor, when to resume normal activities or return to work, and what other activities to restrict.	1-Tell you what you could do to take care of your self at home; 2-tell you how to pay attention to your symptoms and when to call the doctor If medications: 1-explain clearly how to take the medicine (that is,	1-Adapted, Gerteis et al. 1993, Delbanco 1992; 2-new 1-Adapted, DiMatteo and

(*continued*)

TABLE 2 *continued*

Concept: domain and definition	Item content[a]	Sources of items or item themes
	when, how much, and for how long); 2-go over all medicines you were taking; 3-give you written instructions about how to take the medicine (other than what was on the container); 4-tell you the reason for taking the medicine; 5-tell you about side-effects you might get from your medicine	Hays 1980, Cleary et al. 1991, Webster 1989; 2-new; 3-new; 4-adapted Cleary et al. 1991; Gerteis et al. 1993; 5-adapted Cleary et al. 1991
Communication: empowerment: Patients are given a sense that they have the ability to affect their health outcomes; personal responsibility is encouraged.	1-Make you feel that following your treatment plan would make a difference in your health; 2-make you feel that your everyday activities, such as your diet and lifestyle, would make a difference in your health	All new
Decision making: responsiveness to patient preferences regarding decisions: To the extent that a patient desires involvement in decision making (through clinician	1-Try to involve you or include you in decisions about your treatment; 2-ask how you	1-Adapted DiMatteo et al. 1993; Kaplan et al. 1995; Westat Inc. 1996;

elicitation of patient preferences), the clinician explains alternative treatment options if there are any, explains how each might differ in terms of outcomes, discusses pros and cons of each option, considers patient preferences, and arrives at mutually agreeable treatment strategies.

felt about different treatments; 3-make decisions without taking your preferences and opinions into account; 4-how often did you feel pressured by doctors at this clinic to have a treatment you were not sure you wanted?

2-adapted Webster 1989; 3-adapted McCusker 1984; 4-new

Decision making: consideration of patient's desire and ability to comply with recommendations: Clinician determines extent to which patient can and wants to fulfill expectations of treatment regimen; takes this into account in treatment recommendation; makes modifications accordingly.

1-Ask if you might have any problems actually doing the recommended treatment; 2-understand the kinds of problems you might have in doing the recommended treatment

All new

Interpersonal style: friendliness, courteousness: Clinicians and office staff treat patients in friendly, courteous manner, and make them feel welcome.

1-Treat you in a friendly and courteous manner; 2-make you feel as if you weren't welcome; 3-behave rudely toward you

1-Adapted Marshall et al. 1993; 1994; Davies and Ware 1991; Westat Inc. 1996; Webster 1989; 2-adapted Commonwealth 1995; 3-new

Interpersonal style: respectfulness: Clinicians show respect, genuine interest in patient as a person, pay attention to privacy when examining patients and

1-Seem to care about you as a person; 2-address you by the name that you prefer; 3-talk in front of you as if you

1-Adapted Marshall et al. 1993; DiMatteo and Hays 1980; McCusker 1984;
(*continued*)

TABLE 2 *continued*

Concept: domain and definition	Item content[a]	Sources of items or item themes
when discussing their condition, and do not talk down to them.	weren't there; 4-respect your privacy when examining you or when asking you questions	Rubin 1990; 2-adapted Webster 1989; 3-Cleary et al. 1991; 4-adapted Marshall et al. 1993; Cleary et al. 1991; Davies and Ware 1991, Gerteis et al. 1993; Webster 1989
Interpersonal style: discrimination: Patients are not discriminated against by clinicians or office staff because of their gender, race/ethnicity, education, income, language, or sexual orientation. Clinicians and office staff ensure that patients are not made to feel inferior.	1-How often did the doctors or staff at this clinic make you feel inferior? 2-how often did the doctors or staff at this clinic have a negative attitude toward you? 3-how often did you feel discriminated against by the doctors or staff at this clinic because of your race or ethnicity? 4-how often did you feel discriminated against by the doctors or staff at this clinic because of your education or income?	1-Welch (personal communication); 2-adapted Welch (personal communication); 3-adapted Commonwealth 1995; 4-adapted Commonwealth 1995
Interpersonal style: cultural sensitivity: Clinician demonstrates a willingness to elicit and incorporate patients' culturally based attitudes, values, and beliefs about their	No scale—items did not meet psychometric criteria	

health and health care; may include the
patients' expectations of the clinician's role,
preferences for family involvement in care,
preferred communication style, illness
attribution, and religious beliefs.

Interpersonal style: emotional support, reassurance:
  Clinicians provide reassurance and empathy
  during encounter, try to help patient feel better,
  convey information in a manner that alleviates
  anxiety and fear.

1-Help you feel less worried about
  your health; 2-compliment you on
  how well you take care of your health;
  3-treat you in a compassionate
  and caring manner

1-Adapted Marshall et al.
  1993; DiMatteo and Hays
  1980; 2-adapted Wissow
  et al. 1994; Webster 1989;
  3-adapted FACCT

[a]Unless otherwise noted, items begin with the following phrase: "During the past 6 months, how often did doctors at this clinic. . .." Response
choices were: always; often; sometimes; rarely; and never.

basic ability to communicate, particularly with patients who are not very literate or who speak a different language. One study of indigent and minority patients revealed that 35 percent of English-speaking and 62 percent of Spanish-speaking patients had inadequate functional health literacy (ability to read and understand medical instructions and health care information) (Williams, Parker, Baker, et al. 1995). Three studies have found that having a physician who speaks the patient's language improves a variety of processes. For example, patients ask more questions, and have better health outcomes as well, because they adhere more closely to instructions, keep more appointments, and recall more information than patients whose physician does not speak their language (Manson 1988; Seijo, Gomez, and Freidenberg 1991; Pérez-Stable, Nápoles-Springer, and Miramontes 1997). Professional interpreters may be helpful to patients whose language differs from their physician's; however, interpreters must be sufficiently trained to be able to provide high-quality interpretation (Baker, Hayes, and Fortier 1998). A study of older, minority women found that adherence was related to the clarity and explicitness of physician instructions (Garrity and Lawson 1989).

Elicitation of and Responsiveness to Patient Concerns and Expectations

An essential component of any medical encounter is the ability of clinicians to learn from patients what is wrong. For "active" patients who freely express their concerns, simply listening to the patient may be enough. Other types of patients, like those from lower socioeconomic classes, for example, may be more reticent (Bochner and Pendleton 1980). The burden of eliciting their concerns may then fall more heavily on the clinicians, who must apply skills and cultural competence in drawing out such patients, especially about sensitive topics.

Physicians' responsiveness to patients' concerns and expectations can be revealed by indicating that have heard these concerns and/or by suggesting strategies to address them. There is evidence that patients adhere better to instructions and experience more satisfaction with their treatment when their expectations of care are fulfilled and they find their clinicians to be responsive (Sherbourne, Hays, Ordway, et al. 1992; DiMatteo, Sherbourne, Hays, et al. 1993).

Explanations and Information

Patients vary considerably in how much information they want about their condition and its possible treatments. However, "the more information given to patients, the better the health outcomes" is the conclusion drawn in a review article (Kaplan, Greenfield, and Ware 1989). In a meta-analysis of correlates of provider behavior, nonwhites received less information than whites (Roter, Hall, and Katz 1988). A study of 336 encounters with internists found that doctors often underestimated the desire of poorly educated or lower-class patients for information (Waitzkin 1984). Several studies demonstrate that minority and low-SES patients desire more information than they receive and ask fewer questions than other groups (Shapiro, Najman, Chang, et al. 1983; Waitzkin 1985; Roter, Hall, and Katz 1988). The amount of information given may thus be inadequate for lower-SES or minority patients, suggesting a potential mechanism by which they experience poorer health outcomes than their counterparts. Patients value three types of explanation: about their clinical status, progress, and prognosis; about the technical processes of care; and about ways to facilitate autonomy, care for themselves, and promote their own health (Gerteis, Edgman-Levitan, Daley, et al. 1993).

Explanations about Condition, Progress, and Prognosis. Several studies have found that lower-income and less educated patients receive less information from their providers about their medical condition and prognosis (Hall, Roter, and Katz 1988). Patients and their families need information about the patient's condition, prognosis, and test results that can facilitate understanding.

Explanations about Processes of Care. During diagnosis and treatment, patients require explanations about what is happening and what to expect in terms of tests, procedures, treatment regimens, therapies, referrals, and follow-up visits. Minority patients do not always receive explanations about these processes (Hall et al. 1988). A study of patient–physician communication found that Latino women's physicians were less likely to discuss mammography, even though these women were just as motivated as non-Latino women to undergo this screening if referred by a physician (Fox and Stein 1991). In another study, African-American women were less likely than white women to receive appropriate information regarding prenatal care (Kogan, Kotelchuck, Alexander, et al. 1994).

Explanations about Self-Care. Patients need information about how to care for themselves at home to promote recovery or optimal health. Information about implementing the recommended treatment regimen and taking prescribed medications is especially critical.

Empowerment

Empowerment refers to a process by which people gain mastery over their lives (Minkler and Wallerstein 1990). In our definition of empowerment, clinicians encourage patients to assume personal responsibility for their health and impart the idea that what patients do influences their health. For example, referral to self-management groups for chronic disease (Lorig, Sobel, Stewart, et al. 1999) could help patients to become more active participants in their own care. Some cultural groups may hold fatalistic attitudes toward certain illnesses that the physician must confront in order to bestow on patients the sense that they are capable of managing their illness (Pérez-Stable, Sabogal, Otero-Sabogal, et al. 1992). For minority or low-SES patients who may perceive that they have a relative lack of control over their social circumstances, gaining this sense of self-efficacy may motivate them to make positive changes in adherence and health behaviors (Montaño, Kasprzyk, and Taplin 1996).

The Decision-Making Process

Patients view decision making in the context of the clinician's responsiveness to their preferences and his or her consideration of their ability and desire to comply with recommendations.

Responsiveness to Patient Preferences

We distinguish two constructs of patient preferences:

1. The preference for being involved in treatment decisions.
2. The preference for various treatment and outcome choices.

The Preference for Being Involved in Treatment Decisions. Patients vary in the extent to which they want to be actively involved in their care and the degree to which they want to share in decisions about their treatment: in

other words, to achieve what Schulman (1979) labeled an "active patient orientation." Hence, it is important to determine how much patients would like to be involved in their own care. Depending on their culture, patients may or may not perceive that it is appropriate to take an active stance with respect to their clinicians. For some cultures, involving the patient's family in treatment decisions is the norm; clinicians may need to take into account their patients' views on this topic (Lipson, Dibble, and Minarik 1996). A cross-cultural study of decision-making preferences found that Korean and Mexican Americans were less likely than European and African Americans to feel that patients should be fully informed about their diagnosis and prognosis (Blackhall, Murphy, Frank, et al. 1995). A sense of collectivism in many Latinos and Asians suggests that they might arrive at decisions only after taking into account the interests and well-being of the extended family.

The Preference for Various Treatments or Outcomes. Patients have different values and vary in their preferences for treatment options and potential outcomes; thus, one needs to consider the importance of various outcomes to patients (Eddy 1990). The potential clinical benefits of a treatment option must be considered in light of the acceptability of its benefits and risks to the individual patient (Sharpe and Faden 1996). For minority or low-SES patients, factors like cultural beliefs about illness and treatment and the impact of a treatment on work capacity or their family roles can influence their willingness to accept a particular treatment option.

Consideration of the Patient's Ability and Desire to Comply with Recommendations

Patients vary in their ability and desire to implement recommended treatments. Low-SES patients may find it particularly hard to adhere to recommendations because of limited financial resources or work-related constraints. Hence, optimal care involves taking these issues into account in making treatment decisions. However, patients also may not want to comply. Thus, what might be viewed as nonadherence may be an intentional choice not to pursue a recommended treatment or test because of its perceived risks (Zola 1980). Clinicians need to understand patients' thoughts about the recommended plan and to be aware of any barriers to its implementation so that it can be modified if necessary.

Interpersonal Style of Clinicians

We distinguish five elements of interpersonal style:

1. friendliness, courteousness
2. respectfulness
3. discrimination
4. cultural sensitivity
5. emotional support and reassurance

The clinician's interpersonal style may influence patient outcomes even more than the quantity of teaching and instructions (Aharony and Strasser 1993). For Latino patients, this is especially relevant because empirical evidence supports the adherence of many Latinos to a cultural script called *simpatía*—a preference for positive interpersonal relations (Triandis, Marín, Lisansky, et al. 1984).

Friendliness, Courteousness

The friendliness and courteousness of health professionals and staff are long-standing elements in definitions of interpersonal processes. The opposite of an attitude of friendliness and courteousness might be an impersonal, businesslike manner (Marshall, Hays, Sherbourne, et al. 1993).

Respectfulness

Respecting the patient is a common concept in definitions of interpersonal process, although it is rarely defined. Gostin (1995) notes that the hallmark of respect is the regard, consideration, and deference shown to the patient. Qualitative studies of minority and low-SES patients have led to this definition of respect: the extent to which clinicians show genuine interest in the patient as a person, pay attention to privacy during examinations and when discussing the patient's condition with staff, and avoid patronizing the patient (En Accion: National Hispanic Leadership Initiative on Cancer 1993).

Discrimination

Patient reports of discrimination by clinicians or related personnel are increasing. In one study, 13 to 14 percent of African Americans reported

experiences of racial discrimination while receiving medical care, compared with 1 percent of whites (Krieger and Sidney 1996). In a national survey of minority Americans, 9 percent reported feeling uncomfortable or being treated badly when receiving health care in the past year (Commonwealth Fund 1995). A qualitative study of African-American women found that many women reported being stereotyped by health care clinicians as being unmarried, having many children, and being on welfare (Murrell, Smith, Gill, et al. 1996). Such discrimination could adversely affect health outcomes via mechanisms of poor adherence, lack of follow-up, and discontinuity of care. Discrimination may account for some of the observed racial differences in technical processes of care, which are not well explained by SES or need for care (Council on Ethical and Judicial Affairs 1990).

Cultural Sensitivity

Important to the evaluation of quality of care is the clinician's sensitivity to, and respect for, the patients' cultural beliefs about their health, particularly when these views do not conform to traditional medical models. This quality is distinct from the clinician's cultural competence, which implies that he or she has acquired the skills to work effectively with patients from different cultures. We define cultural sensitivity, from the patient's perspective, as the clinician's willingness to identify and incorporate into their care patients' culturally based attitudes, values, and beliefs about their health and health care, expectations of the clinician's role, and preferred communication style. Cultural conventions or norms may be the basis for Latino patients not asking questions (Poma 1983), and culturally defined communication patterns may make it more difficult for Latino men to disclose psychosocial problems, which may be manifested instead through somatic symptoms (Castillo, Waitzkin, Ramirez, et al. 1995). Thus, culturally sensitive care would incorporate or take into account these culturally prescribed patient styles.

Emotional Support, Reassurance

Emotional support pertains to offering reassurance, caring, and empathy during the encounter, particularly while information is being conveyed. For example, empathy and support can be demonstrated through the manner in which bad news is presented, the selection of a quiet location

for doing so, leaving enough time to allow the patient to respond, being close to the patient, acknowledging the patient's reaction, and conveying the information in a warm, caring manner (Ptacek and Eberhardt 1996).

Validation of Framework through Interpersonal Processes Survey

To test the validity of the distinctions made in this framework, we developed a self-report survey, entitled "Interpersonal Processes of Care," reflecting our definitions of each concept. We used a report-based approach to assess patients' perceptions of what had occurred during their recent medical encounters. Data from the survey were used to confirm the hypothesized structure of the items.

Sources of Item Stems

The item pool was developed from literature on quality of care, physician–patient communication, patient satisfaction, and the physician–patient relationship, and from unpublished surveys. Nearly half the item stems were adapted from existing surveys, and a few were taken either directly or slightly modified from existing literature or surveys (DiMatteo and Hays 1980; McCusker 1984; MacKeigan and Larson 1989; Webster 1989; Rubin 1990; Cleary et al. 1991; Davies and Ware 1991; Dawson 1991; Delbanco 1992; Gerteis et al. 1993; Marshall et al. 1993; Marshall and Hays 1994; Wissow, Roter, and Wilson 1994; Kaplan, Gandek, Greenfield, et al. 1995; Commonwealth Fund 1995; Westat Inc. 1996; FACCT 1997). The remaining items were new, based on results of prior qualitative studies as well as on our definitions. All reports of processes pertained to doctors at a particular medical clinic over the past six months. Spanish and English versions of the survey were developed simultaneously in order to decenter the English version (i.e., assure that the English and Spanish versions were as similar as possible by changing English words as needed to enable selection of the best Spanish word). Standard methods of translation and back translation were used (Marín and Marín 1991), with iterative pretesting and revision.

Setting and Recruitment

The instrument was administered as part of a larger study evaluating a primary care gatekeeper system within the adult medical clinic at San Francisco General Hospital, a public sector facility. This facility serves an ethnically diverse, primarily low-income population. The clinic provides primary care to over 5,000 adult patients per year. Medical residents provide approximately 70 percent of direct care to patients, and faculty provides 30 percent. A computerized listing was generated of the following types of patients:

1. patients who had made one or more visits in the prior six months
2. patients who were African American, non-Latino white, or Latino
3. patients who were 18 years and older

Ethnicity was recorded in the database by clinic registration personnel and confirmed by self-identification in the interview. A total of 1,517 patients meeting inclusion criteria made up the sampling frame.

An initial contact letter indicated that they would be called and invited to participate in a telephone interview about patient care. Bilingual and bicultural interviewers conducted all interviews. Because it was expected that a substantial portion of patients might be difficult to reach by telephone, an additional interviewer conducted face-to-face interviews at the clinic with patients on the list who had scheduled appointments and were unreachable by telephone. All patients were paid $5.00 for the interview.

Methods of Analysis

Our goal was to determine whether the hypothesized domains from the framework could be measured by structured items and scored as scales that were reliable and yet relatively independent. Multitrait scaling analysis, a confirmatory approach, was performed to examine the psychometric properties of the hypothesized scales (Stewart, Hays, and Ware 1992), using MAP-R software (Ware, Harris, Gandek, et al. 1997). Multitrait scaling analysis enables testing of assumptions on which Likert scaling is based:

1. Each item in a hypothesized grouping is substantially linearly related to the total score computed from other items in the group (item convergence).
2. Each item correlates much higher with the construct it is hypothesized to measure than with other constructs (item discrimination).
3. Item groupings not hypothesized a priori are not identifiable from the data.
4. Items in the same scale contain the same proportion of information about the construct (similar item–scale correlations).
5. Items measuring the same construct have approximately equal variances and therefore do not need to be standardized.

For the first criterion, we used a conservative standard of .40, which is typically applied to measures with some historical experience (Stewart, Hays, and Ware 1992; Ware et al. 1997), despite the fact that the scales are early in their development; a criterion of .30 is suggested for newer scales (Nunnally 1978; Ware et al. 1997). For the second criterion, the MAP-R program identifies as a definite scaling error any item that has a correlation with another scale that is significantly higher than the correlation with its hypothesized scale. Items that correlate higher, but not significantly higher, with another scale than with their hypothesized scale are considered as probable, rather than definite, scaling errors. We utilized the criterion of a definite scaling error for omitting an item, given the early phase of development.

The MAP analysis was conducted separately for the three main dimensions (communication, decision making, and interpersonal style) to use the maximum sample size for each analysis. In the survey, two of the six hypothesized communication scales contained skip patterns in which a subset of items was answered only if the person answered "yes" to receiving any tests or "yes" to receiving any medications in the prior six months. Thus, analyses of communication scales were first done on all communication items, which limited the sample to the 80 percent that received a test and a medication ($N = 433$). Once these were completed, we analyzed the communication scales that did not include these skip patterns to determine if any results changed with the total sample.

Results

Of the original sampling frame, 603 (40 percent) completed the survey. A large number could not be reached because their contact information was incorrect, which was expected. The response rate among those who were contacted was 82 percent; it was 76, 85, and 77 percent for African Americans, Latinos, and non-Latino whites, respectively. Rates were similar for women and men (81 percent and 79 percent, respectively). The majority (83 percent) of the 603 respondents received the survey over the phone, and 74 percent of Latinos completed the Spanish-language version.

Those who were contacted were more likely to be older, female, and Latino ($p < .01$). Among those contacted, Latinos were more likely to complete the survey than whites or African Americans ($p < .05$). There were no differences in age or sex between respondents and those who refused the interview.

The final sample of 603 patients ranged in age from 21 to 87 years ($M = 54$; $SD = 13$). The breakdown of self-reported race and ethnicity was Latino, 39 percent; African American, 33 percent; and white, 28 percent. Years of education ranged from 0 to 22 ($M = 11$; $SD = 4$); 50 percent were women, 39 percent reported speaking English poorly or not at all. Fifty-nine percent rated their health as fair or poor. The payer mix for the sample was 55 percent public (Medicare and Medicaid), 5 percent private, and 40 percent self-pay (no insurance).

Summary of Scale Characteristics. Table 3 summarizes the results for all scales: the number of items in each scale; the range of item-scale correlations; the internal-consistency reliability; and the scaling success rate. The minimum item-scale correlation was .40 for all but one item. Reliability coefficients ranged from .64 to .93. All but one were over .70, our criterion of adequacy. The rate of definite scaling errors ranged from 75 to 100 percent, with 11 of 13 scales above the 80 percent threshold (Ware et al. 1997). Final items are indicated in table 2.

Communication. Five of the six hypothesized communication scales were confirmed by the analyses. "Explanations of self-care" was split into two scales: "explanations of self-care" and "explanations of medications." The first contained items that were relevant to all respondents, and the second contained items specifically about medications. The final general

TABLE 3
Internal-Consistency Reliability and Summary Statistics for 13 Interpersonal
Processes of Care Scales[a]

Interpersonal process of care	N	No. of items	Item-scale correlations	Internal-consistency reliability	Scaling success rate[b] (percent)
Communication					
General clarity	433	2	.57	.70	100
Elicitation and responsiveness of patients' concerns and expectations	433	4	.64–.79	.86	100
Explanations of condition	433	2	.87	.93	100
Explanations of processes	433	4	.45–.70	.78	88
Explanations of self-care	433	2	.70	.83	100
Explanations of medications	433	5	.47–.64	.74	97
Empowerment	433	2	.73	.84	100
Decision making					
Responsiveness to patient preferences	545	4	.33–.56	.64	75
Consideration of patients' ability to comply	545	2	.75	.85	100
Interpersonal style					
Friendliness and courteousness	574	3	.54–.68	.76	78
Respectfulness	574	4	.51–.61	.76	83
Discrimination	574	4	.68–.76	.87	100
Emotional support, reassurance	574	3	.56–.65	.75	100

[a]N = 433–574.
[b]Scaling success rates reflect the percentage of item scaling successes in which items correlated significantly higher with their hypothesized scale than with the other scales in the matrix.

clarity scale omitted the items pertaining to people with language barriers and use of interpreters because these items did not meet the item convergence criterion.

The correlations among the seven communication scales ranged from .26 to .76 (median .57), indicating sufficient independence to consider them as unique. The highest correlation was between the "explanations of condition, progress, and prognosis" and the "elicitation and responsiveness to patient problems, concerns and expectations" scales. Because of the strong conceptual distinction between these two constructs, this level of correlation is tolerable, at least in this developmental phase (Ware et al. 1997). An analysis of the five scales that did not contain skip patterns in the total sample with nonmissing values ($N = 556$) indicated that the scaling results were comparable.

Decision Making. Both decision-making scales were confirmed, and the two scales had a correlation of .43, indicating independence. The only issue was that one item (in the "responsiveness to patient preferences regarding decisions" scale) had an item-scale correlation of .33 (less than our .40 criterion). This item was one of two negatively worded items. Upon removing this item, the correlation of the other negatively worded item dropped below .40 as well (a typical finding when negatively and positively worded items appear in the same scale). We thus included the item at .33 to maintain the content validity of the scale.

Interpersonal Style. Four of the five hypothesized scales were confirmed. The correlations among the four scales ranged from .48 to .62 (median .53), suggesting that these are relatively independent. The cultural sensitivity scale did not meet our criteria for psychometric adequacy. For example, items did not meet our convergence criterion, and they correlated more highly with the "emotional support" and "respectfulness" scales.

Discussion and Implications

We have expanded traditional conceptualizations of interpersonal processes of care to delineate specific components and to specify domains salient to minority or low-SES patients. The conceptual framework is operationalized in terms of patient reports of processes that occurred during recent visits. Results generally support the structure of the framework, with two exceptions: the "cultural sensitivity" and the "explanations of self-care" scales.

Apparently the cultural sensitivity concept overlaps considerably with more general ones, like respectfulness. In earlier sections, we described several culturally based values and attitudes that affect interpersonal processes, such as collectivism, deference to authority, the importance of dignity and respect, and a preference for positive interpersonal relations. What needs to be established is whether these cultural constructs consist of basic values that are relevant to all groups (e.g., consideration of others' beliefs and opinions) or whether they are culture specific. It is possible that cultural sensitivity can only be operationalized through these more general domains. Despite this possibility, we believe that the concept of cultural sensitivity has considerable face validity to those from culturally unique backgrounds—that is, those who feel the most different from the majority of health care providers. Thus, we suggest that further studies of cultural sensitivity be conducted.

Splitting the "explanations of self-care" concept into two scales improved the item-scale correlations and made more sense conceptually, given the specific nature of explanations about medications. In other scales, there were minor problems with some of the original items. For example, in the original "general clarity" scale, we included items about clinicians using an interpreter and speaking to patients in their own language if they had difficulty with English. These items had poor item-scale correlations, suggesting that it is difficult to include such specific items in a scale intended for all persons. It is possible that a scale specific to individuals with English-language barriers is needed.

Although the framework was generally supported by the findings, there is clearly room for improvement in how well the final survey items fully represent the definitions. Further, there may be areas in which existing confirmed concepts can be enriched in the future. For example, involvement of family and friends in decision-making processes may be an important addition to the decision-making concept (Ferguson, Weinberger, Westmoreland, et al. 1998; Riehman, Sly, Soler, et al. 1998). Further modifications and final specification of the scales and framework should be based on additional validation studies. A revised instrument with improved items based on specific qualitative studies of the problematic scales could result in better measurement of the existing definitions. In addition, tests of the survey in other diverse populations and in different settings would be useful. With further development and validation, the concepts and measures could be applied in three areas:

1. To examine the extent to which these processes account for health disparities between minority or low-SES patients and their counterparts.
2. To provide information to consumers of health care to facilitate choosing among plans.
3. To identify specific aspects of interpersonal processes that might be targeted for quality assessment and improvement.

Interpersonal Processes as a Mechanism for Explaining Health Disparities

One of our primary goals is to facilitate investigation of how interpersonal processes of care affect health outcomes or explain observed disparities in health outcomes. There is little research on the first of these topics and virtually none on the second. Most of what is known of the first comes from two studies: on how processes of care affect patient satisfaction with care (Aharony and Strasser 1993) and on the effectiveness of communication on health outcomes (Leopold, Cooper, and Clancy 1996). In the study by Peterson et al. (1997) cited above, in which African Americans with coronary heart disease were less likely than whites to undergo revascularization, the differences were associated with a lower survival rate in African Americans. Thus, if interpersonal processes, like decision making and communication, could improve the rates of surgery, the outcomes would be better. Future studies are needed to evaluate these associations.

Selection of Health Plans and Providers by Consumers and Purchasers

Information on interpersonal processes could be useful to consumers and purchasers in selecting among health plans, where choice exists. Prior efforts at quality reporting have concentrated on technical aspects of care (e.g., HEDIS, NCQA) and on patient satisfaction with access, providers, and health plans. Most quality assessment efforts have not focused on special issues of quality for disadvantaged or minority groups, where poor quality is more likely to occur. Our concepts and measures reflect reports of what happened rather than opinions; reports have been shown to be important to consumers in selecting health plans (McGee,

Kanouse, Sofaer, et al. 1999). In a review of how report cards are under-
stood by patients, results indicated that patients seldom understood re-
ports of technical processes (Jewett and Hibbard 1996), but they clearly
understood reports about interpersonal processes (which were poorly rep-
resented in the report cards that were studied). Therefore, augmentation
of surveys like CAHPS with more concepts on interpersonal processes
might provide consumers with useful information for selecting among
health plans.

Quality Assessment and Improvement

Managed care systems are capturing larger shares of the health care mar-
ket and are including more diverse patient groups. Understanding as-
pects of interpersonal processes could facilitate quality management,
especially when the enrolled population is diverse. The value of each
domain depends on its importance in terms of its ability to predict tech-
nical care and health outcomes, as well as the importance of the domain
to patients. To convert reports about interpersonal processes into quality
indicators, it is necessary first to determine whether the processes meet
guidelines for quality of care (Brook, McGlynn, and Cleary 1996). Once
it is shown that they do, patient-based information regarding these in-
terpersonal processes can be incorporated into standard quality reports.
Cleary and McNeil (1988) suggest that interpersonal processes should
meet socially defined norms for social interaction among individuals.

Sufficient information is available on some of the variables in the
framework to begin testing interventions that are likely to improve the
quality of interpersonal care of patients from diverse groups and, in turn,
to improve the health of plan members. Interventions can be designed
to help both patients and clinicians. Interventions that have been under-
taken to help patients participate more actively in their own care have
improved the overall interpersonal quality of care and health outcomes
(Kaplan, Greenfield, and Dukes 1993; Roter et al. 1995). Such inter-
ventions could help lower-SES or minority patients communicate bet-
ter with clinicians. Although much has been accomplished in this area
(Kaplan, Greenfield, and Dukes 1993; Kaplan, Greenfield, and Ware
1989), more could be done to apply this work in diverse popula-
tions.

Interpersonal processes information could also be used to specify ini-
tiatives to improve quality through targeting the interpersonal skills of

clinicians during their medical training (Chassin, Galvin, and National Roundtable on Health Care Quality 1998), particularly their interactions with diverse subgroups. Studies have demonstrated improvements in patient outcomes following interventions to improve physician communication skills (Roter et al. 1995). The training of medical and mental health clinicians to provide better interpersonal care to minority patients is receiving more attention (Frankel, and Stein 1996; Yutrzenka 1995).

Information on interpersonal processes could also be used by health plans to identify predictors of patient satisfaction or switching among plans. For example, we know that patients rank patient–physician communication as the second most important part of an office visit, whereas physicians rank it sixth (Laine, Davidoff, Lewis, et al. 1996).

In attempting to improve interpersonal processes, it is essential to keep in mind the structural constraints on such initiatives. The ability of clinicians to respond to diverse needs is circumscribed by limitations on the amount of time they can spend with patients, by organizational and payer policies that structure protocols and treatment options for clinicians, and by other institutionally mandated or imposed regulations. Thus, efforts to modify structural constraints may be a necessary first step toward improving interpersonal processes for patients who need either more time or alternative approaches to care (e.g., use of interpreters, lay health workers) to meet their special needs.

In sum, the current twin emphases—on incorporating patient-reported information in assessments of the quality of care and on the diversity of our nation's population—increase the effectiveness and relevance of patient survey methods to policy formulation, as evidenced by the recent U.S. Department of Health and Human Services' Initiative to Eliminate Racial and Ethnic Disparities in Health. Thus, we are challenged to refine our ability to incorporate patient perspectives in meaningful ways that lead to improvements in the health care quality and health status of all populations, especially those at higher risk of poor outcomes.

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