

Appendix B-2

A Review of Language and Other Communication Barriers in Health Care (Lee)

**A REVIEW OF LANGUAGE AND OTHER COMMUNICATION
BARRIERS IN HEALTH CARE**

By

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**ASSESSING THE IMPACT OF PHYSICIAN-PATIENT COMMUNICATION
BARRIERS ON HEALTH CARE COSTS AND QUALITY**

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I. INTRODUCTION

Among the many challenges facing health care in the United States today is the role of language and cultural barriers in health communication that affects health care access and quality. High levels of immigration over the last several decades have increased the foreign-born population to over 11% of the U.S. resident population, the highest level since 1930 (U.S. Census Bureau 2002: QT-P14). There are over 31 million foreign-born residents in the U.S., with the majority originating from Latin America (52%) or Asia (26%) (U.S. Census Bureau 2002: QT-P15).

The large and rapidly growing foreign-born population has increased language and cultural diversity in the U.S. population. About 18% of the U.S. population aged 5 and older speak a language other than English at home (U.S. Census Bureau 2002: QT-P16). Spanish and Asian languages account for the majority of this population, with 11% speaking Spanish and 4% speaking an Asian language. Among those who speak Spanish at home, almost 30% report speaking no English or speaking English “not well”. The comparable figure for Asian language speakers is 23% (U.S. Census Bureau 2002: QT-P17). Lack of or limited English proficiency represent language barriers for immigrants in seeking health care from a mainly monolingual English-speaking health care system.

Immigrants were socialized in cultures different from mainstream U.S. culture. Culture can be defined as “an integrated pattern of human behavior including thought, communication, ways of interacting, roles and relationships, and expected behavior, beliefs, values, practices, and customs” of a social group (Taylor 1997, cited in Denboba et al. 1998: S-47). There are many ways in which culture affects health and health care. Penn et al. (1995) list five health domains that are influenced by culture:

- Seeking Health Care: Cultural belief systems such as disease etiology and beliefs about major life events such as births and deaths influence decisions about seeking health care.
- Preferred Treatment: Cultural beliefs about health, illness, and treatment influence preferred treatment once symptoms of illness are recognized and acknowledged.
- Acceptability of Health Care: Cultural familiarity or knowledge of a health care system affects acceptability of health care.
- Health Behavior: Cultural preferences and values affect health behavior such as the use of preventive health care, health-related lifestyle, and sources of health-related knowledge.
- Interactions with Health Providers: Cultural social relations, processes, stereotypes, etc. affect interactions between individuals and inter-group relations.

The challenge to health care posed by a growing patient population that is linguistically and culturally different from the majority U.S. population is complex and multi-faceted. However, communication barriers related to cultural and linguistic diversity are increasingly recognized as contributors to health disparities between patient groups (Brach and Fraser 2000; Collins et al. 2002; Denboba et al. 1998).

This report is part of an effort to assess the impact of communication barriers between patient and physician on the quality and costs of health care (Department of Health and Human Services, Office of Minority Health 2003). Underlying this effort is the belief that understanding and being understood is a critical component in ensuring equal access to, and quality of, health care for all patients. Developing effective communication between physician and patient who speak different languages and who come from different cultural backgrounds is, therefore, an integral part of the effort to reduce or eliminate health disparities (National Center for Health Statistics, Healthy People 2000, 2010).

This report reviews the literature on language and cultural barriers in health care. Specifically, its charge is to examine the impact of cultural and language barriers on verbal communications during clinical encounters between physicians and patients who speak different languages.

II. CULTURE, LANGUAGE, CULTURAL COMPETENCE, AND EFFECTIVE COMMUNICATION

While language and communication systems are part of culture, and language has often been used as a proxy for culture, the overlap between language and culture is only partial. For example, Spanish speakers come from a variety of countries with distinct cultures (Del Pinal and Singer 1997). Indeed, the Spanish that is spoken varies by country of origin. The same applies to Asian immigrants who speak a variety of Asian languages, such as Chinese, Vietnamese, Korean, Tagalog, Hindi, etc., and who grew up in different cultures (Lee 1998). For example, Mandarin Chinese speakers from China are products of a Chinese culture and society that differ from Mandarin Chinese speakers from Singapore or Mandarin speakers from Taiwan. It is important, therefore, to recognize diversity within language groups and within broad statistical categories such as “Asians” or “Hispanics” when thinking about communication barriers between patients and doctors (Collins et al. 2002).

The growth of the culturally and linguistically diverse population has led to many efforts to encourage or ensure that health care systems respond to the distinct needs of culturally and linguistically different patients by becoming “culturally competent” (Fortier et al. 1998; U.S. Department of Health and Human Services, Office for Civil Rights 2001; U.S. Department of Health and Human Services, Office of Minority Health, Closing the Gap 2001). Just as with the concept of culture, there are many definitions of cultural competency. However, most definitions are derived from one developed by mental health researchers who defined cultural competence as “a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or amongst professionals and enables that system, agency, or those professionals to work effectively in cross-cultural situations” (Cross et al. 1989, cited in Brach and Fraser 2000: 182).

Effective communication between patients and physicians who are culturally and linguistically different implies the employment of strategies to provide culturally competent health care, such as those described by Brach and Fraser (2000). The importance of effective communication in good patient care is indicated in the following quotes:

“Without effective use of language, the physician-patient relationship is seriously impaired” (Woloshin et al., 1995: 727).

“The clinician must communicate with the patient or a proxy (e.g., a family member) to learn about the patient’s problems, needs, and concerns and to convey information and offer recommendations about care” (Hornberger et al., 1996: 846).

“Communication between physicians and patients is fundamental to medical care” (Joos et al. 1996: 147).

“The conversation between physician and patient has long been recognized to be of diagnostic import and therapeutic benefit” (Jacobs et al., 2001: 468).

“Effective communication between patient and doctor is critical to good medical outcomes” (Collins et al. 2002: 9).

At a minimum, effective communication means that all participants in the communication comprehend and understand the content of the communication. Beyond this minimum, effective communication implies subjective feelings such as trust, empathy, and mutual satisfaction with the communication. In the case of patient-physician verbal communication during a clinical encounter, effective communication means that both physician and patient:

- Understand the content of each other’s spoken communication
- Feel that they are understood by the other
- Articulate all thoughts related to the encounter, leaving no questions and thoughts unexpressed
- Feel that sufficient time is available for speaking and listening
- Feel overall satisfaction with the communication

As part of the clinical encounter and overall care, an important outcome of effective communication is the development of a patient-centered treatment plan (Institute of Medicine 2001: 48-51). Gerteis et al. (1993, cited in Institute of Medicine 2001: 49) identified the following features of patient-centered care: “(1) respect for a patient’s values, preferences, and expressed needs; (2) coordination and integration of care; (3) information, communication, and education; (4) physical comfort; (5) emotional support – relieving fear and anxiety; and (6) involvement of family and friends”.

III. RESEARCH ON LANGUAGE, CULTURAL, AND OTHER COMMUNICATION BARRIERS IN HEALTH CARE

There is an extensive literature documenting language, cultural, and other communication barriers in health care. It is a challenging task to attempt a review and summary of such an extensive and diverse literature. This section highlights the main areas of focus and findings. It is by no means an exhaustive or detailed review. It will also identify gaps in the research literature.

Most of the research can be categorized into two main areas of study: (i) access to care or utilization studies that examine the role of language and cultural barriers in access to health care; and (ii) quality of health care studies that analyze the effect of language and cultural barriers on the quality of care received by linguistically and culturally different patients. Some studies examined both language and cultural barriers in health care, while others focused on one or the other. Some researchers conflated language, culture, race, and ethnicity in their research, using these terms interchangeably.

Access to Care or Utilization Studies

The conventional health behavior model depicts the relationships between various independent variables such as systemic characteristics (for example, availability of providers and facilities) and individual predisposing characteristics (for example, need, sex, and age) and enabling characteristics (such as health insurance) on access (Aday and Andersen 1974; Andersen et al. 1983). Language and cultural barriers can be added to health behavior models to illustrate their effects on access to medical care. For example, limited English proficiency and cultural unfamiliarity with the U.S. health care system can both be considered inhibitors or barriers in accessing medical care.

Language Barriers

Several papers describe the general problem of language barriers and communication in health care (Chang and Fortier 1998; Torres 1998; Woloshin et al. 1995). Various studies show that language barriers are associated with *lower access* to health care. In a report by the Institute of Medicine, language barriers were ranked among the top three barriers, along with lack of health insurance and transportation problems, that prevented minorities and the poor from receiving necessary care (Millman 1993).

A survey of local health departments in 1992 highlighted the adverse impact of language barriers on the ability of LEP patients to make appointments, explain symptoms, understand medical terminology, and follow treatment instructions (U.S. Conference of Local Health Officers 1993).

LEP patients report fewer physician visits and lower use of preventive care, after controlling for factors associated with health care access such as health insurance, literacy, having a regular provider, and socioeconomic characteristics (Derose and Baker 2000; Hu and Covell 1998; Solis et al. 1990; Stein et al. 1991; Woloshin et al. 1997). For example, Woloshin et al. (1997) found that non-English speaking women were significantly less likely to receive breast examinations, mammogram, or Pap tests and LEP patients were less likely to have a regular source of primary care, a factor associated with lower health care use (Weinick and Krauss 2001).

Other researchers have reported on the role of language barriers in lower use of health care among particular patient groups such as LEP Hispanics/Latinos (see, for example, David and Rhee 1998; Derose and Baker 2000; Hu and Covell 1998; Robert Wood Johnson Foundation

2002; Seijo et al. 1991). Derose and Baker's (2000) study found that Latinos with poor or fair English proficiency reported approximately 22% fewer physician visits after controlling for other predictors of physician visits.

There are fewer studies that specifically examine language barriers and access to health care among the second largest LEP population, LEP Asian Americans, although some reports refer to this relationship (Association of Asian Pacific Community Health Organizations 1996). Zane et al. (1994) report findings from local surveys in California on the role of language barriers in limiting access to health care among several Asian ethnic groups and D'Avanzo (1992) described lower health care use among Vietnamese refugees that was related to language barriers.

Cultural Barriers

The role of culture in medical care is related to the Health Belief model (Rosenstock 1966), which defined cultural barriers to care as "primarily internal, subjective beliefs" (D'Avanzo 1992: 246). The effects of cultural differences on health care use are similar to those of language: cultural differences often translate into cultural barriers that lower access to health care. However, the research on cultural barriers on access or use of health care is not as extensive as research on language barriers. The role of culture is mostly explored in terms of quality of care (see below).

Often, language and culture are used interchangeably so that the effects of culture may not be distinguished from those of language. Proficiency in a language does not necessarily bring with it cultural familiarity and competence. A U.S.-born White doctor can choose to learn a second language, let us say, Vietnamese, and become sufficiently proficient that she is bilingual in English and Vietnamese. She may still lack cultural knowledge of Vietnamese culture, including values and beliefs about health and illness, traditional health treatments, and the experience of being a refugee-turned-immigrant in the United States. Overcoming the language barrier is a major step in effective communication with her Vietnamese-speaking patients, but cultural differences can still affect the patient-doctor relationship.

Research on cultural diversity and barriers in patient-physician communication typically use race or ethnicity or language to indicate culture. Oomen et al. (1999) studied cultural barriers in health care by comparing Latino patients interacting with non-Hispanic White physicians, and report lower quality of care for Hispanic women related to cultural norms. Dibble et al. (1997) compared Black, Asian, White, Latina, and Pacific Islander women on ethnic (cultural) differences in rates of breast cancer screening, with lower rates among Latina and Asian women related to embarrassment during the procedure.

Pachter (1994) reviews the importance of culture in clinical care with several examples of patient-held beliefs and behaviors that are discordant from biomedicine, and how this may represent a barrier to health care. For example, differences in the understanding and definitions of health terms and beliefs in "folk illnesses", i.e., illnesses that are commonly recognized within a cultural group, and whose explanatory models often conflict with that of the biomedical

paradigm” influence culturally diverse patients’ use of health care (Pachter 1994: 691). The case of *empacho* as a folk illness among Puerto Ricans was described to illustrate this cultural effect.

The arrival of large numbers of refugees after the end of the Vietnam War led to several studies of the role of cultural barriers in suppressing health care use in spite of need. Uba (1992) reviewed several of these studies and described the role of cultural beliefs about suffering as inevitable, beliefs about causes of illness, distrust of Western medicine, unfamiliarity of Western medical methods, health care providers’ cultural ignorance, and poor communication related to cultural differences as among the most important in Southeast Asian refugees’ under-use of health care.

Unfamiliarity with the U.S. health care system also discourages health care use and leads to misunderstanding between providers and patients, which further discourage use by culturally different patients (Hoang and Erickson 1982). For example, many Vietnamese refugees experienced health care in a “crisis-oriented system of care” (Hoang and Erickson 1982: 247) and do not understand the U.S. system of scheduled appointments and preventive care. A recently completed study of foreign-born Asian women and health care provide confirmation of such cultural misunderstanding among Vietnamese women who did not understand why they were not treated when they showed up at a health clinic without an appointment. Vietnamese women also thought that they would receive immediate and better care at an emergency facility because they understood the “emergency room” to refer to their interpretation of the nature of their health problem, which was an emergency. Needless to say, such cultural unfamiliarity and misunderstanding by culturally different patients may act as barriers to seeking appropriate health care (Lee 2003).

Cultural preferences for using traditional treatments can also be associated with reduced use of health care (Kleinman et al. 1978). Researchers have shown that many culturally different patient populations turn to traditional treatments first, then turn to Western medicine, or employ traditional treatments in conjunction with Western medical (Buchwald et al. 1992; Ma 1999; Pang 1989; Spector 1996).

Finally, Western medical treatment and hospitals are often associated with death among people who grew up in rural Asia, leading to fear and avoidance of medical care (Aronson 1987). The Western-style hospital is an alien and frightening place for many Asian peoples (Spector 1996).

Summary

A review of the literature on language and cultural barriers to access leads to the following conclusions:

- Limited English proficient (LEP) and culturally different patients are *underserved* by the U.S. health care system. Research consistently document a relationship between language and cultural barriers and *lower* use of health care by LEP patients and those from different cultural backgrounds.

- The role of language barriers in access to care has been more extensively studied than that of cultural barriers.
- Research on Spanish-speaking patients dominates the literature on language barriers.
- Language differences become barriers to health care by making communication between patients and health care providers difficult at various points of contact with the health care system, including scheduling appointments and understanding instructions for follow-up care.
- Cultural unfamiliarity with the U.S. health care system and belief systems about health, illness, and treatments act as barriers to seeking medical care.
- There is a need for better measurements of cultural effects on physician-patient communication. Current research tends to conflate language or race/ethnicity with culture without explanation or justification.
- More research is needed on relationships between particular aspects of culture and its effect on health care use and quality of care.

Quality of Care and Patient Satisfaction

Language Barriers

Language barriers have been shown to affect the *quality* of health care received by LEP patients. In late 1999, the Institute of Medicine highlighted the effects of language barriers in its report on medical errors and patient safety (Kohn et al. 1999). Error rates were higher when physician and patient spoke different languages (Gandhi et al. 1998). Woloshin et al. (1995) described the association between language barriers and inaccurate medical history taking and misdiagnoses of medical conditions.

Language barriers may also reduce patient's abilities to follow provider instructions and adhere to treatments (Collins et al. 2002; David and Rhee 1998; Manson 1988) or to comply with instructions for follow-up care (Enguidanos and Rosen 1997; Manson 1988). Poorer medical outcomes among patients with hypertension and diabetes were also associated with language barriers (Perez-Stable et al. 1997; Tocher and Larson 1998). However, the relationship between language barriers and adherence is not consistent (Kaplan et al. 1989).

Language barriers may also lead doctors to over-treat LEP patients, sending patients for additional tests and procedures that increase costs of care and may carry additional risks to the patient (David and Rhee 1998; Lee and Rosenberg 1998).

Quality of care can also be measured by *patient satisfaction*. Research comparing English and non-English speaking patients reveal that language barriers were associated with lower patient satisfaction among non-English speaking patients (David and Rhee 1998; Morales et al. 1999). Findings from a mail survey by Morales et al. (1999) report significantly greater

dissatisfaction with provider communication among Spanish-speaking respondents. Another survey of patients who sought care in an emergency department found that while over 70% of English-speaking patients were satisfied, only 52% of non-English speaking patients were satisfied (Carrasquillo et al. 1999). Non-English speakers were also less willing to return to the same emergency department for care and also reported more problems with communication. Other research shows that patient satisfaction increased when interpreter services were available and helped to reduce language barriers (Baker et al. 1998).

Cultural Barriers

Research on the role of culture in health care typically operationalizes culture in terms of race or ethnicity (American Indians, Asians, Blacks, Hispanics, Whites) and/or language (Chinese or Spanish speakers are assumed to be culturally different). When patients are foreign-born (for example, Spanish-speaking Mexican immigrants or Russian-speaking immigrants from the former Soviet Union), such proxy measures of cultural difference may be justified, given the greater likelihood of such patients growing up in a different culture and speaking a different language. When patients are native-born, however, for example, U.S.-born Black/African Americans, the assumption of cultural difference needs explanation. Social science research on the differential persistence of ethnicity (and culture) over generations in the United States can help health care researchers studying the role of culture in health care.

The tendency in health research on cultural barriers to use proxy measures of culture illustrates the difficulties of directly measuring cultural differences in a patient population and using such observed cultural diversity as the independent variable in examining health and health care-related outcomes. Most of the research on cultural diversity and health care studied Spanish-speaking patients and various Asian ethnic populations. Some studies report fairly strong evidence of the role of culture in lowering the quality of care provided to culturally diverse patients.

Cultural values about family roles and responsibilities were highlighted in Oomen et al.'s (1999) study of Hispanic women with Type 2 diabetes. Treatment models that emphasized self-centeredness, individual motivation for improvement, and life-style changes conflict with the traditional importance of family over self among Hispanic women. A failure to tailor treatment regimens that can be followed by Hispanic women without sacrificing traditional responsibilities as mothers and wives would fail, leading to poorer outcomes for this patient group.

Davis (1996) discussed ethical dilemmas that physicians face when confronted with differences between good clinical practices stemming from conventional western biomedicine and different cultural beliefs about end-of-life decisions. For example, western doctors and health professionals believe in full disclosure of diagnosis and prognosis to the patient because that is ethically right while some cultures, particularly, Chinese culture, prefer non-disclosure because that is the right thing for family members to do in order to protect the patient. Such cultural differences not only create conflicts between providers and patients and patients' families, but impact quality of care provided.

Researchers have also studied the use of traditional “folk” treatments by culturally different patients. Lack of knowledge of traditional treatments and practices by Western-trained physicians may compromise the quality of care provided to culturally diverse patients. Most traditional treatments do not cause major adverse effects (such as drinking *ginseng* tea) but there are some potentially serious effects. Ingestion of clay, laundry starch, and certain herbs such as *ma huang* (or ephreda) could have serious adverse health effects (Pachter 1994). There are also potentially dangerous and unknown interactions between traditional treatments and Western medications if culturally diverse patients utilize both forms of treatment and do not inform Western physicians of their use of traditional treatments. According to Ma (1999: 432), “simultaneous use of Western and traditional Chinese health practices is very common among Chinese immigrants”. This was also the case among Korean immigrants (Pang 1989). Traditional practices such as moxibustion, coining, and cupping produce skin lesions that may be misinterpreted by Western doctors unfamiliar with such practices as abuse or pathology (Pachter 1994; Spector 1996).

Culturally diverse patients’ lack of knowledge about Western medical procedures can contribute to poorer medical care. For example, being sent for an X-ray procedure such as a mammogram or X-ray of a potentially broken bone may be misinterpreted as treatment and the patient may expect to recover from the procedure alone. Such patients then fail to comply with follow-up care, which, in turn, is misinterpreted by physicians as lack of interest in caring for themselves (Grizzell et al. 1980). Many Asian cultures, particularly Chinese culture, see blood as “the source of life for the entire body” (Spector 1996: 253). The frequent drawing of blood considered routine in Western medical practice is seen as poor medical care leading to poorer health.

Cultural distance between physician and patient reduces trust and empathy, compromising the quality of care provided. Shapiro and Saltzer (1981) report that White non-Hispanic physicians were significantly less able to establish rapport with, provided poorer explanations of therapies to, and were less able to stimulate feedback from, their Hispanic and Spanish-speaking patients, compared with their non-Hispanic English-speaking patients. Collins et al. (2002) report that Hispanics and Asians were less satisfied with their health care, as indicated by lower percentages who have confidence in their doctors (54-57%, compared with 72% among Whites) and who feel that they were involved in health care decisions as much as they wished (56% of Asians and 65% of Hispanics, compared with 78% of Whites).

Summary

A review of the literature on language and cultural barriers on health care quality leads to the following conclusions:

- Some studies show that language and cultural barriers in patient-physician communication *lower* the quality of care received by LEP and culturally different patients and increase medical errors. However, more research is needed on direct links between language and cultural barriers in physician-patient communication and specific adverse health outcomes.

- Communication-related medical errors occur through mistakes in medical history taking, patients' lower adherence to treatment because of inability to understand and follow instructions, and over-treatment of patients.
- The effects of cultural diversity on quality of health care are complex and operate in many ways, including differences in meaning and understanding of health and illness, preferred treatments, and cultural ignorance and misunderstanding by both physician and patient.
- LEP and cultural minority patients are less satisfied with the overall quality of their health care.
- More research is needed on how communication barriers affect health care, using different outcome measures besides patient satisfaction.

Other Barriers

This report's focus is on language and cultural barriers in physician-patient communication. However, it may be useful to include a brief discussion of the effects of other factors on the physician-patient relationship that also affect quality of health care.

Health Literacy

Health literacy is defined as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (National Center for Health Statistics, Healthy People 2010).

Health literacy as a patient characteristic can affect the effectiveness of communication for all patients but is expected to play a larger role for patients who are culturally and linguistically different from the physician, for several reasons. Health literacy is inversely associated with socioeconomic status, and a higher proportion of the foreign born population is poor and have lower educational attainment (Rudd et al. 2000). Medical concepts and their expressions are influenced by culture, as discussed above. The effect of low health literacy in reducing communication effectiveness can therefore be multiplied for patients from different cultural and language backgrounds.

There is a fairly extensive literature on health literacy (see Rudd et al.'s [2000] annotated bibliography, and updates by Zobel 2002). However, there is a lack of research on the relationship between English language proficiency, cultural diversity, health literacy, and physician-patient communication. Health literacy is distinct from English language proficiency and culture, and it will be challenging for researchers to include measures of health literacy in studies of language and cultural barriers in physician-patient communication.

Race/Ethnicity, Gender, and Socioeconomic Status

As discussed above, many researchers use race and ethnicity as proxy measures of culture, and attribute differential health treatments to cultural barriers. A different but related area of research is to examine racial concordance as a predictor of patient satisfaction and other measures of health care quality.

Cooper-Patrick et al. (1999) compared African American and White patients and physicians on physicians' participatory decision-making styles and found that physician-patient race concordance was associated with higher ratings of physician decision-making as more participatory. Greater patient participation in health care is seen as beneficial, by increasing patient satisfaction and leading to better health outcomes. This study also examined gender concordance as a factor but did not find a similar result.

Saha et al. (1999) also investigated the effect of physician-patient racial concordance on patient satisfaction and use of health care with a sample of Black, Hispanic, and White respondents drawn from the 1994 Commonwealth Fund's Minority Health Survey. Their findings confirm the effect of racial and Hispanic origin concordance between physician and patient on greater patient satisfaction.

Van Ryn and Burke (2000) examined data provided by physicians on post-angiogram physician-patient encounters to evaluate the effects of patients' race and socioeconomic status on physicians' perceptions and beliefs about patients. The researchers found that physicians (in this sample, 84% of physicians were White) tended to perceive African Americans and patients from low and middle socioeconomic status more negatively: "Black ... patients were more likely to be seen at risk for noncompliance with cardiac rehabilitation, substance abuse, and having inadequate social support. In addition, physicians rated Black patients as less intelligent than White patients, even when patient sex, age, income and education were controlled. Physicians also report less affiliative feelings toward Black patients" (Van Ryn and Burke 2000: 821).

Researchers interpreted the findings on racial concordance as reflecting greater cultural competency among minority physicians, more effort by physicians in race-concordant relationships to work with their patients, possible bias among White physicians toward minority patients, and possible bias by minority patients about their physicians.

Language Services

Trained medical interpreters can facilitate communication between physicians and patients who speak different languages (Baker et al., 1998; Haffner 1992; McLeod 1996; Putsch 1985; Woloshin et al. 1995). The role of interpreter services is reviewed in more detail in the following section on research on interventions to improve physician-patient communication.

Physician Interaction Style

Doctor-patient communication can be analyzed using interaction analysis systems to highlight aspects of physician interaction style on effective communication and positive health outcomes (Ong et al. 1995). The clinical encounter between physician and patient is intrinsically an encounter of unequal actors. The physician possesses authority, knowledge, and prestige while the patient is vulnerable and dependent. Social norms about doctor-patient roles also shape how the physician-patient clinical encounter unfolds. The interaction is, therefore, mostly shaped by the physician's preferences.

The traditional, and still most typical doctor-patient relationship, is one where the physician dominates the encounter and has high control (Stewart and Roter 1989). This type of doctor-centered relationship has also been described as paternalism where the doctor will make decisions *for* the patient, believing that these are in the patient's best interests (Roter and Hall 1992). The high control style is also characterized by frequent interruptions of the patient (Platt and McMath 1979).

Communicative behavior can also be categorized as instrumental (or task-oriented) and affective (or socio-emotional) behavior. Instrumental behavior refers to "technically based skills used in problem solving, which composes the base of 'expertness' for which the physician is consulted" (Hall et al. 1987). Examples of instrumental behavior include speech that provides information to the patient, discussing tests and procedures, and explaining reasons for treatment options.

Affective behavior refers to a broader range of behavior, including a physician's behavior and speech that are directed towards the patient as a person instead of as a case, and communication that is designed to establish empathy and a positive relationship with the patient, (Ben-Sira, 1980; Hall et al., 1987). Examples of physician affective behavior include introducing self to patient, providing verbal encouragement and support, non-verbal communication such as touching the patient, and engaging in small talk.

A study of the relationship between physician interaction style and health by Kaplan et al. (1989) found that "physician behaviors that reinforce patients' self-confidence, motivation, and positive view of their health status may therefore indirectly influence patients' health outcomes". Roter et al. (1987) report a positive association between physician's instrumental behavior (especially physicians' information-giving behavior) and patient satisfaction. Physicians' expression of affective behavior was positively associated with patient satisfaction while doctors who communicated in a controlling dominant mode produced less patient satisfaction (Bensing 1991; Buller and Buller 1987).

Summary

The main conclusions from a review of other barriers to effective physician-patient communication are:

- There is very little research on the effects of health literacy among LEP and culturally different patients on physician-patient communication.
- A few studies report that race concordance between physician and patient improves quality of care, usually measured by patient satisfaction. However, the effects of racial concordance may be confounded with effects of cultural similarity and socioeconomic status. At the same time, researchers should not equate racial/ethnic concordance between physician and patient with cultural competency.
- There is little evidence on the effects of gender concordance on communication and health care, although the research is thin on this issue.
- Language services, particularly interpreter services, can improve communication between physicians and patients who speak different languages. Some studies report the negative effects of untrained interpreters. More research is needed on the most effective use of interpreters and other language services.

IV. A SUMMARY MODEL OF PHYSICIAN-PATIENT COMMUNICATION AND QUALITY OF HEALTH CARE

Figure 1 is a summary model of the above review of cultural, language, and other barriers in physician-patient communication and quality of care. Figure 1 is *not* proposed as a comprehensive model of physician-patient communication. There are other factors not reviewed in this report that affect effectiveness of physician-patient communication such as adequate time for communication (a physician who is pressed for time is less likely to communicate effectively, as E. Jacobs wrote in a personal communication to the author), reason and context for the encounter (communication with a patient who presents an obvious condition that is easily diagnosed and treated is more likely to be effective versus one presenting with a complex problem), and health care organization's characteristics and culture. These are depicted in the dashed box and arrows, lower left of Figure 1.

Figure 1 shows three sets of factors influencing physician-patient communication, indicated by the solid single-headed arrows connecting each box to physician-patient communication. These factors can be inter-related, as indicated by the double-headed arrows. For example, the effects of interpreter services can be affected by physician interaction style – a controlling physician may view an interpreter as threatening his control of the interaction with the patient and attempt to limit the interpreter's role, thereby reducing the effectiveness of interpretation. Another example is a patient with low health literacy communicating through an untrained interpreter with a physician who does not provide adequate information, reducing effectiveness of communication.

The effectiveness of physician-patient communication is best viewed as a continuum, ranging from lower to higher effectiveness, as shown in Figure 1. The degree of effective communication between physician and patient is expected to affect quality of health care. A brief description of Figure 1 follows.

- Figure 1 Here -

Physician and Patient Characteristics

The first set of factors in Model 1 refers to six physician and patient characteristics that affect effectiveness of communication between physicians and patients in clinical interactions. It should be noted that the characteristics *per se* are not significant; rather, the significance lies in the relationships between a physician's and a patient's characteristics.

Culture, Language, and Health Literacy

The effects of language and cultural background and familiarity or proficiency are fairly straightforward: physician and patient speak the same language and are products of the same culture, or they speak different languages and come from different cultural backgrounds. If there is cultural discordance between doctor and patient, effectiveness of communication is expected to be lower. Communication is additionally influenced by how familiar each is with the other's cultural background. The higher the degree of cultural knowledge and familiarity each has of the other's culture, the more effective the communication. If there is language discordance, then effectiveness of communication is reduced, and is further influenced by how proficient each is in the language of the other. The more proficient each is in the other's language, the more effective the communication.

Patient's Health Literacy, Race/Ethnicity, Gender, and Socioeconomic Status

The patient's health literacy affects physician-patient communication positively. Communication between physician and patient is expected to be more effective when there is racial or ethnic or gender or socioeconomic concordance.

Language Services

The availability and effective use of language services, particularly interpreter services, is expected to increase effectiveness of physician-patient communication. Other language services could be availability of translated materials such as brochures with health information. However, there will be important differences in how language services improve physician-patient communication depending on adequacy and quality of the services.

Physician Interaction Style

There are three dimensions of physician interaction style: whether the interaction is physician-centered, and instrumental and affective behavior by physician.

Physician Centeredness

When the physician interacts in a paternalistic doctor-centered mode, effectiveness is lessened because the patient is likely to have few opportunities to speak at any length or to ask questions. Conversely, a more egalitarian patient-centered style is expected to increase effectiveness.

Physician Instrumental and Affective Behavior

Low levels of physician instrumental and effective communication are associated with lower communication effectiveness while moderate to high levels of such communication are expected to increase communication effectiveness.

V. RESEARCH ON STRATEGIES AND INTERVENTIONS TO FACILITATE PHYSICIAN-PATIENT COMMUNICATION

Effective physician-patient communication is critical to good medical care. The review above indicates substantial evidence of language, cultural, and other barriers on effective physician-patient communication and their adverse effects on quality of care that may be related to health disparities. Brach and Fraser (2000) present one of the most comprehensive discussions of strategies to promote culturally competent (including linguistically appropriate) health care in order to reduce disparities in health and health care. Nine different strategies were proposed and described (Brach and Fraser 2000: 184-187):

1. Interpreter Services
2. Recruitment and Retention of Minority Staff
3. Cultural Competency Training of Staff (both clinical and administrative)
4. Coordinating with Traditional Healers
5. Use of Community Health Workers
6. Culturally Competent Health Promotion
7. Inclusion of Family and/or Community Members in Patient Care
8. Immersion into Another Culture
9. Administrative and Organizational Accommodations

Given this paper's focus on verbal communication between physicians and patients who speak different languages, a review of research on strategies and interventions to improve such communication focuses on language and interpreter services, and interventions that focus on either physicians or patients to facilitate effective physician-patient communication. The relation of the different strategies to Brach and Fraser's (2000) above list is noted as appropriate.

Interventions Related to Language Barriers, Particularly Interpreter Services

Health care organizations can employ various strategies to improve access for LEP patients (Anderson 2002; Downing and Roat 2002; Riddick 1998). Language services include interpretation services and translations of written materials. The employment of bilingual health

providers and increased use of signage may also be considered components of an overall strategy to improve communication between patients and physicians who speak different languages.

In spite of numerous studies on language barriers in reducing access and quality of care (as reviewed above), there are surprisingly few studies that evaluate the effectiveness of different language services in improving health care access and quality. Jacobs et al.'s (2001) study showed that implementation of professional interpreter services increased clinical service use among LEP patients. Trained interpreters were also found to improve patient-physician communication by reducing inaccuracies and increasing communication (Hornberger et al. 1996). Professional interpreters eliminated disparities in adherence among Spanish-speaking and English-speaking patients who were seen in an emergency department (Enguidanos and Rosen 1997) and were associated with similar outcomes among non-English and English-speaking diabetic patients (Tocher and Larson 1998). Lee and Pope (2001) compared health visits among LEP patients before and after the implementation of professional interpreter services and found increased use following interpreter services.

It should be noted that these studies did not compare patients who received interpreter services with those who needed interpreter services but did not receive them. Methodological challenges make this difficult, but together, these studies show that professional interpreter services can lead to improved access and quality of care.

In a different study of language services, Seijo et al. (1991) examined the role of bilingual physicians in physician-patient communication, and found that Hispanic patients seen by bilingual physicians had better understanding of the information provided and participated more actively in the communication. While not directed at LEP patients, Joos et al.'s (1996) study comparing an experimental group of physicians who had received a few hours of training on communicating more effectively with their patients with a control group of physicians is instructive. While physicians in the intervention group elicited significantly more information from patients and provided more information to patients, there were no significant differences in patient compliance or patient satisfaction. Whether such intervention may have different effects for LEP patients remains to be seen.

These interventions are related to Brach and Fraser's (2000) interventions 1 (interpreter services), 2 (recruitment and retention of minority staff, for example, bilingual physicians), and 9 (health care organizations provide interpreter services).

Interventions Related to Cultural Barriers

As with the research literature on interventions related to language barriers, there is a paucity of research on specific interventions to reduce cultural barriers.

Denboba et al. (1998) reviewed several programs and efforts by the Health Resources and Services Administration (HRSA) to incorporate cultural competency in health care. For example, the largest bureau within HRSA, the Bureau of Primary Health Care (BPHC), funds safety net grant programs through community and migrant health clinics and partners with foundations and non-profit organizations to improve health care of underserved mostly minority

groups. Other HRSA programs reflect the overall goal of assuring “quality care for underserved, vulnerable, and special populations” through a variety of programs including culturally appropriate “capacity and practice” (Denboba et al. 1998:S-48). It is unclear according to Denboba et al.’s (1998) review the extent to which HRSA’s programs contain evaluation components on the efficacy of different efforts to improve access and quality of care. However, these efforts are fairly inclusive and relate to all nine of the strategies described by Brach and Fraser (2000).

There are a few studies and articles about educating physicians and other health practitioners about cultural competency in order to have more effective care for culturally different patients. Flores et al. (2000) compared U.S. and Canadian medical schools on their inclusion of cultural issues in their curriculums, and reported that most failed to provide adequate training about cultural issues.

Several evaluation studies on the effects of educating health providers suggest that this may be a promising area for improving communication with culturally diverse patients. Marvel et al. (1993) studied the effectiveness of educating residents in family practice on the cultural importance of family systems. Residents’ reported benefits from experience in terms of better recognition and awareness of family cultural issues in patient care. D’Andrea et al. (1991) and Culhane-Pera et al. (1997) reported that individuals who had undergone multicultural training self-reported greater awareness and knowledge that could translate into more effective communication. Most of these studies were based on self-assessment. In addition, the next step of evaluating the efficacy of provider education on actual health care provision was not done. Pachter (1994) described his personal experiences with learning from folk healers about “folk illnesses” and remedies in order to communicate more effectively with patients from different cultural backgrounds. There is an obvious need for more systematic research on the potentially important role of provider training (formal or informal) on improving physician-patient communication.

One of the few studies to demonstrate the efficacy of intervention to improve a culturally different population’s health care use was reported by Kelly et al. (1996). Cambodian women’s breast and cervical cancer screening rates increased by almost five times after an intervention designed to overcome cultural, language, and organizational barriers was implemented. The authors noted that the intervention program was “labor intensive and expensive, and extensive involvement of Cambodian staff members was necessary” (Kelly et al. 1996: 443).

Culturally diverse patients can be educated about their health and health care through culturally competent health promotions. Informed patients can be expected to participate more actively in their health care and have more effective communication with their doctors. However, the effects of culturally appropriate health promotion on increasing access or health status are inconsistent and unclear, according to a review by Brach and Fraser (2000: 202).

Summary

A review of interventions to reduce language and cultural barriers in physician-patient communication leads to the following conclusions:

- Compared to the extensive literature documenting the adverse effects of language and cultural barriers on physician-patient communication, there is a *serious lack of research* on interventions to reduce such barriers.
- Given the primacy of interpreters in facilitating communication between physicians and patients who speak different languages, research is needed to evaluate the efficacy of different modes of interpreter services and other factors (such as physicians' abilities to use interpreters effectively) on improving physician-patient communication.
- Research on reducing cultural barriers in physician-patient communication will be more challenging, given the broader meaning of culture and cultural competency. Reducing cultural barriers through educating physicians and patients represent promising paths but will be challenging. Culture cannot be taught and learnt through one-time or short-term workshops, modules, etc.
- Researchers should be cautious about equating racial/ethnic difference with cultural difference, and racial/ethnic concordance between physician and patient with cultural competency. Both are forms of stereotyping.

VI. CONCLUSION

Effective communication between physician and patient is critical to good health care. When doctors and patients speak different languages, achieving effective communication becomes vastly more challenging.

This paper is a report of an extensive but by no means exhaustive review of the literature on communication barriers in health care, focusing on language and cultural barriers in the physician-patient verbal encounter. The review found that there is an extensive literature documenting the presence and role of language, cultural, and other barriers to effective physician-patient verbal communication. Within this literature, there are remaining gaps that need to be addressed, as described in the summary of this section. In contrast, there is a paucity of research on interventions to reduce language and cultural barriers in physician-patient verbal communication, as described in the summary of this section.

Research that evaluates different interventions to reduce language and cultural barriers will be essential if the case is to be made for implementing linguistically and culturally appropriate health care, including measures to improve physician-patient communication involving participants from different cultural backgrounds speaking different languages.

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Figure 1: Model of Physician-Patient Communication and Quality of Health Care

