The therapeutic effects of the physician-older patient relationship: Effective communication with vulnerable older patients

Abstract: There is growing evidence that the outcomes of health care for seniors are dependent not only upon patients’ physical health status and the administration of care for their biomedical needs, but also upon care for patients’ psychosocial needs and attention to their social, economic, cultural, and psychological vulnerabilities. Even when older patients have appropriate access to medical services, they also need effective and empathic communication as an essential part of their treatment. Older patients who are socially isolated, emotionally vulnerable, and economically disadvantaged are particularly in need of the social, emotional, and practical support that sensitive provider-patient communication can provide. In this review paper, we examine the complexities of communication between physicians and their older patients, and consider some of the particular challenges that manifest in providers’ interactions with their older patients, particularly those who are socially isolated, suffering from depression, or of minority status or low income. This review offers guidelines for improved physician-older patient communication in medical practice, and examines interventions to coordinate care for older patients on multiple dimensions of a biopsychosocial model of health care.

Keywords: physician-patient communication, adherence, health outcomes, vulnerable populations

Overview

With the impressive advances of modern medicine, individuals are living longer lives than they did just a decade ago. Since 1990, the United States has seen a 12% increase in the number of Americans over the age of 65 (Hetzel and Smith 2001). The baby boomer generation is nearing retirement age and will soon be faced with the many challenges associated with aging, such as changes in income level, health insurance coverage, health status, career involvement, and social status. While a number of Americans will age in relative physical, economic, and psychological comfort, there are many for whom medical, financial, and social limitations and maladaptive emotional responses will lead to problematic consequences that affect their health. Effective communication with physicians and health care professionals at all levels can serve as a vital link to health and adaptation to the aging process. This paper reviews the specific challenges faced by the vulnerable aging population, examines the important role that physicians and other health professionals can play in the care of patients who face multiple challenges of aging, and offers tools for helping patients to cope with the vast array of challenges they face in the aging process.
The challenges of aging

Social changes

The social challenges of aging may be particularly stressful, as the size of social networks and the experience of social support can change drastically as an individual ages. At retirement, for example, many older individuals have left behind the workplace as a potential source of friendship and support from co-workers and associates. The loss of familiar roles may deprive older persons of the opportunity to feel competent in social relationships (Holahan and Holahan 1987). Changes in family structure, widowhood, the death of friends, and declines in mobility may further reduce opportunities for social involvement, making the older population more vulnerable to loneliness and the stress of social isolation (Gurung et al 2003). Such losses may lead to depression, which may further contribute to social disengagement (Gurung et al 2003).

Older adults with greater emotional support from their network of social relationships tend have better cognitive functioning (Seeman et al 2001) and better health (DiMatteo and Martin 2002), although the correlational nature of such findings suggests that social support may be both a cause and a result of social connection. There is some prospective evidence to support the notion that individuals with better social relationships live longer (Berkman and Syme 1979). Evidence for the health benefits of social support may be clearer. Social support has been associated, for example, with better blood pressure regulation in patients with hypertension (Uchino et al 1996) and with better immune functioning (Baron et al 1990). A pathway connecting social support to perceptions of stress through physiological functioning (eg, cardiovascular, immune) and ending in physical health outcomes has been suggested (Uchino et al 1999). In addition, cognitive factors and self-efficacy can be both causes and effects of the physical and psychological challenges of aging, and can affect the maintenance of networks of social support (Holahan and Holahan 1987).

Cognitive and psychological challenges

The physical, economic, and social challenges of aging can increase the risk of depression and other psychological morbidity. The US National Institutes of Mental Health (NIMH), for example, estimates that 2 million of the 35 million Americans over the age of 65 have major depression and an additional 5 million have depressive symptoms. In the primary care setting, the prevalence of depressive symptoms in elders can be as high as 40% (Chen and Landefeld 2007). Major depression is a risk factor for suicide, which is almost twice as likely in the elderly as in the general population (Alexopoulos 2005). Older patients being treated for depression have poorer outcomes than younger patients, with a higher chance for relapse during follow-up and shorter intervals until recurrence. Patients with no past psychiatric history also face late onset depression as a result of medical comorbidity, and they often face poor prognosis (Mitchell and Subramaniam 2005). Added challenges of low income and limited health care coverage can increase the threat of depression in older patients who have serious acute or chronic medical conditions. Age is highly associated with increased burden of disease, with 80% of adults over the age of 65 reporting at least one chronic condition, and 52% reporting two or more chronic conditions (Chen and Landefeld 2007). Research suggests that low socio-economic status, poor physical health, disability, social isolation, and relocation can combine to cause serious adjustment disorder with depressed mood, and can even lead to severe depressive episodes (Alexopoulos 2005). Older adults in the lowest income brackets are particularly vulnerable, with 60% higher rates of depression than those of higher income. Low income patients have twice the rate of functional limitations, and are less than half as likely to report good or very good health status compared with those of higher income (Chen and Landefeld 2007).

As a group, the elderly are less educated than younger patients. In the 2000 US census, only 61% of adults over the age of 75 had at least a high school education and only 13% had higher than a bachelor’s degree. Although formal education does not guarantee adequate health literacy, education is an important element in the maintenance of cognitive functioning and in the understanding of and commitment to disease management (Baker et al 1996; Gazmararian et al 1999). In addition, technology has advanced rapidly within the last few decades and many physicians may perceive the elderly as not able or willing to make use of health information available to them via newer information technologies such as the World Wide Web (Halter 1999). Research shows, however, that older patients are no less likely than younger ones to use health information that is transmitted with newer technologies (ie, computers); some older patients are even more likely to use this form of technology to receive health information (Wagner and Wagner 2003).

Income and health insurance

Although some may approach retirement with good pensions and a comfortable “nest-egg,” many older individuals...
experience drastic reductions in both income and health insurance coverage when they enter retirement (Tian et al 2005; Hinrichsen et al 2006). Older adults may be perceived as economically secure because of Social Security and Medicare in the US, and social insurance programs in other countries, but older age can be accompanied by significant economic limitations. In the US, for example, more than 10% of those older than 65 were living at or below federal poverty level, and 28% were considered to be low income, according to 2003 statistics (Chen and Landefeld 2007). Americans over 65 years of age account for 17% of those defined as poor (Rao et al 2004). In the realm of health care, it is often the case that social programs such as Medicare fall short of covering the numerous medical care needs of this population of patients, and some patients may even face choices between obtaining necessary medications and purchasing other life necessities. Access to optimal care may be limited by many factors, including economics and geographic location. In the US, compared with those reporting incomes over $50,000/year, low income older adults report significant limitations in access to affordable medical care (Chen and Landefeld 2007).

Disparities in health care availability and access can contribute to poor chronic disease management and adverse health outcomes. Following acute myocardial infarction, for example, low income Medicare patients present to the hospital later than those with higher incomes, have been found to be less likely to be treated at hospitals with catherization facilities and medical school affiliation, receive lower rates of evidence-based medical therapy, and have lower rates of survival at 30 days and 1 year (Rao et al 2004). Low income, and difficulties meeting basic needs such as paying for food and medical bills, have been shown to be most consistently associated with increased mortality (Chen and Landefeld 2007). Even among patients of later middle-age (51–61 years old), those who lacked health insurance were found to have higher risk adjusted rates of decline in overall health and physical functioning and higher risk-adjusted mortality compared to individuals with private insurance (Sudano and Baker 2006). Data from the Health and Retirement Study show that near-elderly adults who are uninsured as they approach 65 years of age are a particularly vulnerable population (McWilliams et al 2003; Baker and Sudano 2005). In fact, in the US, a quarter of adults in late middle age are at increased risk of health decline because they are uninsured in the years before retirement and Medicare eligibility (Baker and Sudano 2005).

The physician-patient relationship as a therapeutic agent

Overview

As patients navigate the physical, psychological, social, economic, and lifestyle changes associated with aging, one relationship that may remain an important source of support and encouragement is the relationship with their physician. Regular visits may occur to address a variety of health concerns including medication follow-up, health behavior and lifestyle counseling, blood tests and screening, and many aspects of chronic disease management. In the US, patients 65 and older who suffered from comorbid disease ranked as an intermediate health liability were found to visit their primary care physician 3.9 times per year and their specialist 4.3 times per year on average (Starfield et al 2005).

Frequent medical visits give physicians the opportunity to be therapeutic agents in the provision of health care to the aging patient. Their role can go far beyond offering biomedical care. Communication between physician and patient can have far-reaching implications for the physical and mental health of elder patients. Effective physician-patient communication involves the exchange of both biomedical and psychosocial information as well as the emotional and affective care that is so important to older patients’ health outcomes. The development of a trusting therapeutic relationship can be central to the health care of elder patients.

The communication of information to patients

Offering information to patients and successfully conveying it in a clear and comprehensible format is a central component of the medical visit. Physicians typically give their patients information in the form of explanations or instructions. They communicate a diagnosis, describe options for treatment, and explain the strengths and weaknesses of those options.
Physicians may give information of their own accord or in response to a request by the patient (Street 1991). Information that is given to patients in medical visits may affect not only how satisfied patients are with their care, but also how well they subsequently adhere to medical recommendations. Adherence can ultimately determine long term health outcomes (Hays et al 1994; DiMatteo et al 2002). Some studies have suggested that older patients are not as satisfied as younger patients with the information given to them by their physicians during the medical visit (Greene et al 1994a), and that older patients are actually given less information than those who are younger. While it important for physicians to be informative and to educate older patients to take responsibility for their health and actively manage their chronic conditions, navigating this process of information delivery can be complicated. There may not be a “one size fits all” approach to giving information to patients, and physicians must gauge the appropriate amount of information for each patient. Too much can overwhelm some patients, while too little may leave some distressed and confused (Roter et al 1988; Brashers et al 1999; Beach et al 2006). Appropriate information transfer for each patient is a central part of the achievement of a strong and effective therapeutic relationship and can have important effects on patients’ health (Comstock et al 1982).

Choice in care is an important aspect of information sharing in the physician-patient relationship. Research comparing physicians who have a “participatory style” of communication to those who are more formal and paternalistic has established that older patients tend to be offered less participatory involvement in their care than patients younger than 30. Factors in addition to patient age, such as gender, education, ethnicity, and health status, have been found to affect the level of participation that patients experienced (Kaplan et al 1996). Further, some physicians tend to offer different levels of explanation, attention, and referral for services as a function of patients’ ethnicity and type of insurance (Stepanikova and Cook 2004). Choices offered to patients, and the quality of physician-patient communication itself, can vary considerably by non-medical factors (Stepanikova and Cook 2004).

It may seem that physician information-giving is a direct response to patients’ solicitation of information and desire for active participation in their care, but this is not always the case. Research examining physician-patient communication following patient coronary angiograms has indicated that a relatively small proportion of the information that physicians gave to patients was in response to patient’s direct questions and active involvement in their care (Gordon et al 2005). These researchers found that physicians gave less information to African-American patients than to Caucasian patients, and less information to those with less severe coronary disease than to those who were more severely ill. In this study, physicians who wanted to limit information actually controlled the conversations and kept them very brief.

The provision of information to patients may be particularly important for those with serious illnesses where complex issues, some involving personal values, can affect decisions and treatment options. A study of cancer patients’ discussion of adjuvant treatments found that patients younger than 60 were given more thorough information than their older counterparts. In addition, older patients were spoken to with more “descriptive” terminology such as “a lot” or “a good chance” rather than being given numerical information such as statistics (Leighl et al 2001).

A patient-centered context is of central importance in the development of effective communication with patients. Aspects of patient-centered care involve the development of mutual cooperation between physician and patient (Stewart 1984), focus on the patient’s point of view (Mead and Bower 2000), attentiveness to patients’ psychosocial concerns, and development of a therapeutic alliance in which physician and patient work together to improve the patient’s health. Aspects of patient-centered communication, including information-giving, psychosocial talk, and expressions of partnership are associated with greater patient satisfaction and improved patient health outcomes (Hall et al 1988; Stewart 1995). Psychosocial communication can enhance discussion of the challenges of treatment adherence and improve patients’ understanding of other issues in their lives that affect coping with the burden of chronic illness.

Achieving patient-centered care depends upon complex factors including the environment and model of practice, the physician’s own communication pattern and ideas about the doctor-patient relationship, and the patient’s desires, motivations, communication style, and health-related quality of life (Aita et al 2005). Nonverbal communication, including behaviors such as eye contact, smiling, and facing the patient during the visit, can be a vehicle through which a physician is able to enact patient-centered care in the visit (Roter et al 2006). In patient-centered care, physician and patient work together to build partnership by sharing in decision-making (Street et al 2003) and physicians encourage their patients to be active participants in diagnosis and treatment (Makoul 1998). Such encouragement can take place via motivational interviewing, a style of treating patients that is
based on principles of counseling and involves addressing preventive health behavior changes and adhering to chronic disease regimens (Miller and Rollnick 1991). Motivational interviewing requires working empathically with patients to help them cease unhealthy behaviors and adopt those that are more consistent with health and well-being. Achieving patient-centered care on a broad scale requires intense focus on development of communication skills during medical training and residency programs, as well as ongoing evaluation of the success of these programs in teaching valuable communication skills.

**Understanding what patients wish to convey**

Physicians’ receptiveness to their patients’ communication can provide therapeutic care by serving multiple purposes: opening the lines of communication, enabling physicians to develop stronger relationships with patients, and determining treatment regimens that patients find more manageable and to which they are able to adhere. As research demonstrates, older patients tend to discuss biomedical topics more frequently than psychosocial topics because they often have a number of biomedical issues that need attention in the medical visit (Greene et al 1987). Studies have shown consistently that the discussion of psychosocial topics is extremely important in the care of older patients. Awareness and care of the older patient as a whole person, and attention to his or her psychological, social, and emotional experience are critical to effective disease management (Adelman et al 1992, 2000).

Patients’ active participation in their treatment, their involvement in medical decisions, and their voicing of preferences for many aspects of their care can be essential to both patient satisfaction and patient adherence. Active communication increases patients’ knowledge of their condition, allows them to convey important information to their physicians, and improves the process of care. Studies show that patient participation is influenced by patients’ characteristics; greater participation is offered to patients who are active participants themselves and have a higher education level (Street et al 2005). Female patients tend to be more outspoken about their care, while non-White patients have been found to demonstrate fewer behavioral attempts at participation with their physicians, resulting in less effective communication (Street et al 2005).

The process of physician-patient joint decision-making about medication regimens is essential to patient adherence. Studies show that if physicians and patients together decide what medications will be taken, how often, how long, and on what schedule, as well as how to deal with side effects and other challenges, adherence is much better than if patients are simply told what to do and left to their own to work out how they will adhere (Lin et al 1995; Chewning and Sleath 1996; Jahng et al 2005). This is particularly important with older patients, who may have problems remembering multiple medical regimens that are confusing and can conflict with one another (Dunbar-Jacobs and Schlenk 2001; Ownby et al 2006).

Participation in decision making has been found to vary considerably with several aspects of the psychosocial environment of care, including the participants’ skills in communication, patients’ trust in the provider, and patients’ level of knowledge and confidence in themselves (Belcher et al 2006). In the medical visit, physicians sometimes inadvertently erect barriers to effective and efficient transmission of information with their patients. These barriers include interrupting and rushing patients. In research on patients’ opening statements in their visits, physicians were found to interrupt patients on average 23 seconds after they began to talk (Marvel et al 1999). Studies of physicians’ interactions with elders have shown that patients are uncomfortable and unable to talk about psychosocial issues when they feel rushed through the visit and sense that their physician is not interested in what they have to say (Greene and Adelman 1996). In a focus group and survey study of older men and women, time constraints on visits and the feelings of being “rushed” were offered frequently as barriers to effective communication (Vieder et al 2002).

**Empathy in the care of older patients**

*Empathy* involves a socio-emotional connection between physician and patient and is vital for developing and sustaining the therapeutic relationship (Roter and Hall 1989). The American Board of Internal Medicine (ABIM), which can be a driving force behind elements of the US medical school curriculum, defines physician “humanism” as including the qualities of empathy as well as trust, integrity, respect, and compassion for patients. Carl Rogers, the eminent humanistic psychotherapist, described empathy as adopting another’s perspective and “walking in their shoes” for a time, to view life from their point of view (Raskin and Rogers 1989). The ability to empathize is an active process. Unlike sympathizing, which involves feeling sorry for another’s circumstances, empathy requires actively trying to understand another’s experience of the world, and conveying this understanding to him/her through words of comfort.
and through actions and gestures of positive nonverbal feedback. The idea of empathy in medicine is based largely on the biopsychosocial model of integrative care, which states that medicine should be approached from a biological, psychological, and social perspective, and involves cognitive, behavioral and emotional components, all of which are centered on the patient (Brody 1999).

Empathy can increase feelings of relatedness, reduce patients’ experience of alienation from others, and can be expressed through both verbal and nonverbal channels (Sleath et al 2000). Verbal expressions of empathy may involve words of supportiveness, expressions of understanding, or invitations to the patient to tell his or her story of the experience of illness or pain. Nonverbal expressions of empathy may involve eye contact during discussion of difficult topics, leaning toward the patient, or having a closer interactional distance than in more formal interaction (Hall et al 1995). Tone-of-voice can express affective feelings and empathy. In research, the content-filtering of speech allows empathy in voice tone to be evaluated without its semantic content. Results suggest that empathic voice tone is associated with better outcomes including fewer malpractice claims (Ambady et al 2002) and more successful referral of alcoholic patients for further treatment (Milmoe et al 1967). Recognition that there is also affective or socio-emotional meaning in task-oriented behaviors, such as information exchange, is critical. A physician can provide much information to a patient and do so through voice tone, body posture, and facial expressions reflecting empathy (Roter and Hall 1989).

There are documented disparities in the empathic care of patients. Fewer empathic responses tend to be offered to patients who are of minority ethnicity status and who are not proficient in English than to those who are or majority and language-proficient (Ferguson and Candib 2002). Empathy requires openness to cultural differences, including understanding folk beliefs, the role played by the patient’s family in his or her life, listening with attentiveness (including when a patient has an interpreter), and exploring how patients use alternative medical treatments or home remedies (Mull 1993). A systematic review has found that patients of lower socioeconomic status received less empathic comments from their physicians than did those of higher income (Willems et al 2005a). These researchers also found that patients’ own communication styles influenced the communication directed toward them. Specifically, lower income patients asked fewer questions and appeared to prefer less decision-making power than did higher income patients. Their physicians reciprocated with a less participatory style and fewer attempts to involve patients in the process of care (Willems et al 2005a).

**The value of therapeutic relationships to patient health**

The physician-patient relationship can have an important, and sometimes lasting, effect on patients’ treatment regimen adherence and ultimately on their health outcomes (Stewart 1984, 1995). When patients face barriers to their adherence such as economic challenges, lack of insurance, and logistical problems (eg, limited mobility and transportation), the therapeutic relationship can serve as a guide or additional source of support for patients (Greene et al 1996). Such patient challenges may seem to be tangential to the treatment experience; however, without practical and emotional support, patient nonadherence may severely limit the process of treatment and affect health outcomes (DiMatteo 2004a). The therapeutic relationship is essential for the physician to understand the patient’s unique situational challenges and subsequently to offer solutions.

Adherence challenges are likely to occur in the management of chronic illness; their resolution is strongly dependent upon communication process. Nonadherence in asthma, for example, can result when patients are uncomfortable describing their struggles with treatment, when they feel constrained in talking about their medication side effects, and when they have difficulty expressing their personal experience of the severe periods of their illness (Apter et al 1998). Dealing with nonadherence among hypertensive patients requires a number of communication strategies in which physicians must assess how patients understand their illness, determine their knowledge and beliefs about the medication and regimen, and explore how their practical, emotional, and financial concerns might affect their adherence (Betancourt et al 1999). Empathic therapeutic communication can help to reduce the economic costs of health care. Greater levels of patient-centered communication, for example, are associated with lower diagnostic testing costs and with more efficient and effective medical visits (Epstein et al 2005).

Developing a therapeutic relationship can be difficult in the face of social barriers and impediments, however. American women of minority ethnic backgrounds for whom English is a second language, for example, receive fewer screening tests, such as breast and cervical cancer screening (Jacobs et al 2005). Similar disparities have also been found with French-speaking women in Canada (Woloshin et al
1997). Additional obstacles include discontinuity of care in the absence of a usual source of treatment (Phillips et al 2000). When patients have good access to health care (Shi et al 2002) and when they have better relationships with their health care providers, they have a more positive view of their own physical and mental health status.

**Therapeutic communication in the care of vulnerable patients**

Many aspects of physician-patient communication, particularly with older patients, can be affected by patient characteristics. In this paper, we explore the role of patient ethnicity, income level, socioeconomic status, education level, and mental health status as factors contributing to the effectiveness or ineffectiveness of communication between the physician and patient in the medical interaction. We consider how these factors can combine with patient age to further complicate the quality of communication.

**Ethnicity**

Communication and ethnicity in physician-patient interaction have been examined extensively in research. In the US, studies suggest that physicians tend to be more empathic and spend more time with White patients than they do with minority patients (Hooper et al 1982; Hall et al 1988; Kaplan et al 1995). Minority patients tend to be rated by their physicians as participating less in the interaction than White patients, and this disparity is greater for interactions that are race discordant (that is, where physician and patient are not of the same ethnicity) (Cooper-Patrick et al 1999).

Research suggests that patients of an ethnic group different from the physician may be less inclined than those in ethnicity-concordant dyads to provide a clear narrative description of their health and current experience to their physician (Ashton et al 2003). Some patients may expect that they will not be understood by physicians who use different terminology and descriptive words than they do; hence, patients may withhold clear explanations of their symptoms and illness experiences. Some patients may feel that they and their physicians have quite different explanatory models for illness, and they may be concerned that the physician will find their personal and cultural explanations for illness to be unacceptable (Charon 2001; Ashton et al 2003). Indeed, physicians’ and patients’ explanatory models of illness can play important roles in the medical encounter and can strongly affect how patients and physicians come to understand each other. These explanatory models derive from culture, education and knowledge, social class, religious beliefs, and personality traits, and may be necessary for trust, satisfaction, patient adherence, and self-management (Ashton et al 2003).

In the process of attempting to provide quality care under time pressures and with limited information, physicians may sometimes unintentionally incorporate racial and ethnic stereotypes into their interpretation of patients’ symptoms, their predictions of patients’ behavior, and their medical decision-making (Cooper-Patrick et al 1999). Cultural stereotypes do play a role in health care disparities. For example, studies show differential patterns of prescribing analgesic medication for ethnic minority patients compared with non-minority patients. In addition, ethnic and cultural differences exist in cancer and HIV treatments and in referrals for cardiac procedures offered to patients (Todd et al 1993; Bach et al 1999). The Robert Wood Johnson Foundation has conducted a survey of Spanish-speaking residents of the US and demonstrated that almost 1 in 5 delayed or refused needed medical care because of language barriers with English-speaking physicians (Robert Wood Johnson Foundation 2002). Differences in the use of health services within ethnic groups can be accounted for by the patient’s level of acculturation as well, even after controlling for age, gender, health status, and insurance status (Burnam et al 1987; Anderson et al 1997). Meta-analytic work on physician-patient communication has revealed that White patients receive a higher quality of care in technical, interpersonal, and “positive-talk” domains of communication with their physicians (Hall et al 1988). Key predictors of the quality of doctor-patient communication may, in fact, be patients’ socioeconomic status, income, and education level (Hall et al 1988).

**Patient income**

Patients’ experiences in the medical encounter can be affected by their income status and economic vulnerability (Willems et al 2005b) and there can be significant income disparities in health care decision-making (Waitzkin 1984; Naumburg et al 1993; Todd et al 1993; Strakowski et al 1995; Feldman et al 1997; Krupat et al 1999). Perceptions of patients as independent, responsible, rational, and intelligent tend to improve their care (van Ryn and Burke 2000), and more educated patients do receive more information and more detailed explanations from their physicians, as do patients from middle to upper socio-economic classes (Waitzkin 1984; Street 1991). While lower income patients tend to ask fewer questions of their physicians, studies show that
they desire much more information than they tend to receive (Waitzkin 1984). Focused, empathic communication can bridge these gaps, as physicians become aware of communication challenges and seek to increase concordance between their perceptions, concerns, and preferences and those of their patients (Willems et al 2005a).

Psychosocial issues

The physician-older patient relationship can be strongly affected by patients’ psychosocial challenges. Patients depend upon their physicians to respond to their psychosocial needs and concerns (Katon et al 2004; Neumeyer-Gromen et al 2004). In response, physicians must approach their patients with models of care that go beyond the biomedical, to biopsychosocial approaches that effectively treat the whole patient. Many primary care physicians face impressive challenges in diagnosing and treating depression in their elderly patients (Schulberg et al 1999; Katon et al 2004; Neumeyer-Gromen et al 2004). Older patients tend to be more hesitant than younger patients to bring up issues of a psychosocial nature in their primary care visits and they tend to underreport depressive symptoms (Greene et al 1987; Lyness et al 1995).

Failure to recognize depression is a common occurrence in the elderly, especially when there are comorbid medical conditions that complicate the patients’ experience of illness (Katon and Sullivan 1990; Badger et al 1994; Carney and Freedland 2003). Older patients may not recognize their experience of a mood disorder and may attribute depressive symptoms to somatic causes that they can more easily define (Lyness et al 1995). Patients’ underreporting of depressive symptoms can be further affected by their cultural background, generational status, and socio-economic status. The more physically, economically, socially, and emotionally vulnerable older adults tend to be the greatest risk for underreporting of psychosocial issues in the primary care interaction (Good et al 1987; Lyness et al 1995; Borowsky 2000; Croghan et al 2003).

Many older patients avoid discussion of psychosocial issues because they are concerned with being “a good patient”—one who does not show any negative or depressed feelings to their physicians (Wittink et al 2006). Many older patients grew up in an era of the paternalistic physician-patient relationship, and are reluctant to accept partnerships in care, even when their physicians encourage reciprocity and joint decision-making. Older patients may be deferent and respectful, and remain relatively passive, even though they have important concerns and psychosocial needs that must be addressed by their physicians in order to insure positive health care outcomes such as satisfaction, adherence, and health (Wittink et al 2006).

Physicians’ awareness of their own communication behaviors can, of course, do much to improve care for their older patients. In the presence of the many biomedical challenges of aging, physicians may be tempted to raise fewer psychosocial issues with their older patients than with their younger patients (Greene et al 1987) and respond more positively to psychosocial concerns in the young than in the old (Greene et al 1987). Discussions tend to be primarily biomedical in nature and often little attention is given to psychosocial talk with elderly patients, perhaps because of a potential belief that the prognosis for older patients’ psychosocial problems is poor (German et al 1987). The more that physicians discuss, ask questions, counsel, and give patients information on psychosocial topics, however, the more satisfied their patients are and the more opportunities become available to solve some of the difficulties that contribute to elder patients’ distress (Bertakis et al 1991).

It is vitally important for physicians to be aware of potential depression in their older patients. Primary care physicians are often the first and only providers of mental health services to many older patients (Lyness et al 1995; Wittink et al 2006). Under-recognition of elder depression can lead to serious consequences such as nonadherence and poor outcomes in the management of multiple chronic diseases, and even result in increased risk of suicide (Coe et al 1984; Carney et al 1994; Conwell 1994; DiMatteo et al 2000). Physicians’ lack of awareness of patient depression can undermine their patients’ trust as well as their rapport with patients. Such limitations in understanding between physician and patient can lead to nonadherence, dissatisfaction, inaccuracy of diagnosis, poor patient health perceptions, and even more doctor-shopping by patients (DiMatteo and DiNicola 1982; Hall et al 1988; Stewart 1995; Tickle-Degnen 2003; Jahng et al 2005).

Research suggests many ways in which physicians can enhance their communication with older patients and improve their chances of detecting, and helping to care for, patients’ depression. When physicians display empathy toward their patients, ask questions about social and emotional content, solicit patient feedback, and employ active listening, their patients tend to be more willing to share their concerns (Hall et al 1988; Roter et al 1997). Additional research is needed to further investigate the precise determinants, outcomes, and nature of physician-older patient communication about
depression, but there is growing evidence that the methods of communication described in this review are important steps in improving the health care experiences and quality of life of older patients.

**Communication challenges in the medical visit**

Medical interactions with older patients almost inevitably include the pressures of time limitations that can affect the quality of care (Keeler et al 1982; Radecki et al 1988). Often because there is so much biomedical care to be delivered, primary care visits with older patients tend to include less health behavior counseling than do those with younger patients, and older patients tend to be given less information about their health issues. Research shows that older patients fail to discuss with their physicians as many as half of the potentially serious medical and psychosocial symptoms that they experience (Rost and Frankel 1993).

Older patients often have difficulty raising important psychosocial concerns when the focus of their medical visit is on their already diagnosed chronic conditions. The overwhelming nature of dealing with multiple chronic health issues can lead to confusion and forgetting, particularly in the context of limited time. Sometimes patients’ intentions to bring up important concerns in the visit become derailed by all that needs to be accomplished and by their uncertainty of which are the most important issues to raise (Rost and Frankel 1993).

Participation in the medical visit tends to be attenuated by patients’ age as well, and is particularly low in patients older than 75 (Kaplan et al 1996). Research has shown that some physicians make an extra effort with their older patients to be nonverbally responsive, egalitarian, non-dominant, close in interpersonal distance, supportive in back-channel communications (such as “hmm” and “uh-huh”), and share opportunities for communication with their older patients (Street and Buller 1988). Despite these positive findings, however, research evidence points to discrepancies between older and younger patients in decision-making in the medical interaction (Adelman et al 1991, 1992).

Other differences between older and younger patients also exist. Younger patients in medical interactions receive more instruction about what is to be done during the visit and more guidance about the procedures of the physical examination than do older patients (Callahan et al 2000). Physicians tend to devote more of the older patients’ medical visit to history taking and question-asking about prior adherence with medications and recommended treatments (Callahan et al 2000).

**Presence of a third person**

Medical visits between older patients and their physicians sometimes involve another person who may be a caregiver, friend, or family member. When another person accompanies the older patient during the medical visit, the interaction becomes a triadic “physician-patient-other relationship”. Third party individuals are often necessary, particularly when the older patient becomes more physically and cognitively vulnerable and has difficulty understanding the discourse that takes place during the medical interaction. The third party can serve an important supportive function for the older patient (Silliman 1989; Greene and Adelman 2003). Third party persons, however, can also pose a challenge and complicate the interaction between an older patient and his or her physician, changing the dynamic of the interaction. When a third person is present, older patients raise fewer topics overall, are less expressive and responsive in the quality of their questioning and informativeness. They tend to be less assertive in triadic interactions than in dyadic interactions, and there is often less joint decision-making (Greene et al 1994b; Greene and Adelman 2003). On the other hand, if the third party person is present at the request of the patient to offer positive support to the patient and accurate information to the physician, their presence may enhance communication (Greene and Adelman 2003). Physicians also often report that under the right circumstances third party persons can be a positive influence on the medical interaction if all members of the interaction are aware of the complexities and subtleties of communication (Brown et al 1998).

It is essential that physicians be prepared for the challenges of possible triadic interactions with their older patients. To enhance this process, physicians should endeavor to recognize the effects and influences of third party caregivers on patient comprehension and involvement, involve caregivers in the interaction process, recognize the needs and concerns of caregivers, and assure caregivers of their own availability as a source of information and assistance in the care of the older patient (Silliman 1989).

**Recommendations for clinical practice**

Communication between the older patient and his or her physician has a strong influence on older patients’ satisfaction, adherence, and other health-related outcomes (Coe et al 1984; Rost and Roter 1987; DiMatteo 2004b).
The physician-patient relationship can itself be therapeutic for the patient, particularly for the older patient who struggles with comorbid conditions, depression, complex treatment regimens, and limited resources. Patients with many medical and psychosocial challenges may seem to have the “deck stacked against them,” but in developing emotionally supportive relationships marked by open communication, physicians can provide a bridge to the achievement of better quality of life for their vulnerable patients. Physicians can provide treatment for depression and other comorbid conditions using strategies focused on the context of the older patient’s life, seeking to address the complexities of biomedical care along with the struggles of loneliness and isolation that can contribute to patients’ emotional challenges. Physicians can help their older patients by simplifying complex treatment regimens, providing helpful strategies such as timers and special pill boxes, and providing assistance in incorporating medication-taking with other daily events. Working with patients to address the practical and logistical challenges of treatment can be essential to adherence. And while evidence exists that the therapeutic offerings to older patients can vary considerably from patient to patient as a function of their ethnicity, income, SES, education level, and mental health, care must be taken to avoid having patients’ characteristics influence the communication patterns between patients and their physicians.

Current research offers various methods for physicians to employ in everyday practice with their older patients. These recommendations, as detailed below, suggest important ways that practicing physicians can care for and support their older patients in facing the challenges of aging and its associated vulnerabilities. This research also suggests a number of important basic guidelines for practitioner behavior, as well as formal programs to improve the psychosocial and biomedical care of patients.

**Guidelines for improved communication**

Research on the physician-patient relationship offers some important recommendations regarding the effective management of care for the older patient. First, it is important for health care providers to elicit and document elder patients’ views regarding their future goals and their personal conceptualization of a good quality of life. Exploration of this issue may require the involvement of family members and caregivers, especially in cultures where decision making is a shared responsibility (Chen and Landefeld 2007).

Second, physicians should provide opportunities and prompts in the medical interaction in order to help their patients to be the best possible reporters of their own history and current illness experience. Physicians should allow patients to provide an open-ended narrative description of their health status, challenges, and concerns, and encourage patients to be assertive partners in their care (Ashton et al 2003). Through the process of telling their stories, patients can reveal important information that might otherwise be unavailable to the physician. A physician who listens to an older patient will be able to learn about the uniqueness of that patient’s personal history. This physician will be able to convey to the patient that he or she has an earnest interest in the patient as a person and not just as a disease condition (Adelman et al 2000). This style of communicating is in line with the patient-centered, humanistic approach mentioned previously which emphasizes empathy for the patient, as well as an opportunity for the patient to narrate his or her personal story (Greene 1987; Raskin and Rogers 1989; Adelman et al 1992, 2000; Charon 2001; Ashton et al 2003).

Third, physicians should regularly evaluate their own communication competence with post-visit questionnaires and/or interviews with patients in order to assess their perceptions of the communication process (Ashton et al 2003). Post-visit interviews by the office nurse or assistant might add further, detailed information about the patient’s life and about condition-specific details that the patient may have failed to mention during the medical visit. Physicians might also consider tape-recording selected visits (with patients’ written permission), and reviewing them alone, with a colleague, and/or with the patient in an effort to assess their own communication strengths and weaknesses, and to develop plans for improvement.

Fourth, physicians should endeavor to recognize and assess depression in their older patients as thoroughly and as early in treatment as possible. Studies of service delivery models that help to improve the treatment of depression in primary care have shown that the recognition and treatment of depression can be significantly improved by training primary care physicians in these skills, integrating the management of mental and physical health concerns, and coordinating team-oriented care that involves primary care doctors and specialists in mental health services (Alexopoulos 2005). Physicians who care for the elderly should receive post-graduate or CME training in the sub-specialty of geriatric medicine, providing them greater familiarity with and understanding of the special issues and
including physicians or translators who are proficient in culturally diverse staff that reflects the community served, health care setting can be facilitated by the inclusion of a competence” (van Ryn et al 2006). A culturally-competent cultural awareness and sensitivity (often called “cultural communication and interpersonal skills that increase their placed increasing emphasis on training physicians in the conditions with which older patients present in practice (Adelman et al 1992).

Finally, a variety of medical training programs have placed increasing emphasis on training physicians in the communication and interpersonal skills that increase their cultural awareness and sensitivity (often called “cultural competence”) (van Ryn et al 2006). A culturally-competent health care setting can be facilitated by the inclusion of a culturally diverse staff that reflects the community served, including physicians or translators who are proficient in the languages with which patients are most comfortable, physician training in understanding the cultural norms and language of patients, and signs and instructional pamphlets in patients’ primary languages (Anderson et al 2003). Even when patients’ native language is English, cultural barriers may still need to be understood and overcome in order to provide the best possible care to older patients. Training physicians in methods for involving their patients in care, especially within culture-specific contexts, would work to encourage a medical interaction based on partnership, which is an essential ingredient of optimal treatment and outcomes.

Similarly, patients should be made aware of the important role that they play in communication during the medical encounter. If feasible, training older patients to be active participants (with particular emphasis on helping those who are most vulnerable, and those who may be initially reluctant to assert their views) can be an important component of successful care. Patients who are trained to be effective communicators and partners in their care are often more compliant with treatment recommendations and have better clinical outcomes than those who are not trained (Greenfield et al 1985; Kaplan et al 1989; Cegala et al 2000). Interventions to train patients can be quite practical and readily administered. In one study, for example, older patients were assigned to a communication skills training intervention which consisted of providing them with a training booklet before their appointment and then conducting 30 minute face-to-face training just prior to their visit with their physician. Trained patients both sought, and provided, more information to their physicians, asked more questions about medically related topics, and were more involved in their care. Training thus enhanced patients’ participation in their care and increased the potential to improve their health (Cegala et al 2001). Given the opportunity to express “ownership” in the health care process, patients engage in more self-care behaviors and demonstrate greater adherence to medical recommendations (Adelman et al 2000; Cegala et al 2001).

**Formal programs**

The biomedical needs of aging patients require responsiveness also to the psychosocial aspects of patient care. Toward that goal, The American Geriatrics Society (AGS) Task Force on the Future of Geriatric Medicine has defined five goals aimed at improving the health and well-being of older patients (Besdine et al 2005): These are: (1) “to ensure that every older person receives high-quality, patient-centered health care; (2) to expand the geriatrics knowledge base; (3) to increase the number of health care professionals who employ the principles of geriatric medicine in caring for older persons; (4) to recruit physicians and other health care professionals into careers in geriatric medicine; and (5) to unite professional and lay groups in the effort to influence public policy to continually improve the health and health care of seniors” (Besdine et al 2005). Multiple chronic conditions, and increasing vulnerabilities and limitations in various realms of functioning, can necessitate complex and multi-faceted treatments for older patients. There is great need for programs that address the psychosocial and biomedical needs of elderly patients and for the incorporation of the successful elements of such programs into physician-patient communication at all levels of care.

**Comprehensive geriatric assessment**

Comprehensive Geriatric Assessment (CGA) is a process of care for older patients based on multidimensional and multidisciplinary approaches to addressing the medical, functional, and psychosocial problems of elderly patients by teams of health care professionals (Williamson et al 1964). The goals are to evaluate and solve problems of older patients in the physical, mental, social, economic, functional, and environmental domains (Rubenstein 1987; Reuben et al 1995; Maly et al 2002).

Accomplished through the implementation of teamwork-based care for older patients, CGA includes not only the patient’s primary care physician but also a geriatrician, a geriatric nurse practitioner, a social worker, and other medical team members as needed. With CGA, primary care practitioners are assisted by assessment teams that monitor patients for short-term or long-term care needs, and develop individualized comprehensive treatment plans for care and follow-up. CGA programs are especially beneficial for patients who have multiple hospital, ER, and urgent-care visits, because the focus of their care can be shifted toward better preventive efforts. Such programs are also conducted on an outpatient basis (such as in the UCSD Seniors Only CARE (SOCARE) program) which is especially effective
with elderly patients who have cognitive deficits including Alzheimer’s disease (http://meded.ucsd.edu/cga/index.html). Patients are seen by their primary care physician for initial assessment and diagnoses, and then a referral is made to SOCARE for further assessment and evaluation.

CGA helps seniors maintain health, functioning, and independence, increases their treatment adherence, and decreases mortality (Stuck et al. 1993; Reuben et al. 1996). Concordance between older patients and their primary care physicians is a particularly powerful predictor of physician implementation of and patient adherence to outpatient consultative CGA recommendations (Maly et al. 2002). CGA can require overcoming particular obstacles including physicians’ skepticism and reservations about its feasibility (Winograd et al. 1993; Reuben et al. 1995). As CGA evolves and costs are reduced, expansion to a broad spectrum of care settings and inclusion of educational components for physicians increases its acceptability to primary care physicians (Reuben et al. 1996; Maly et al. 2002).

Conclusions
Extensive research evidence indicates that the physician-patient relationship itself can offer therapeutic care to patients. A physician’s attention, warmth, caring, concern, and practical assistance, as well as accurate and open communication, can make a tremendous difference to the health of older patients. Through partnerships in care, physicians can significantly improve their older patients’ health outcomes by effectively assessing and treating their biomedical concerns as well as supporting them in their emotional coping, their illness management, and their adherence to treatment regimens. With the implementation of general communication principles as well as the use of specific programs designed to improve senior health care from all angles of the care spectrum, many positive steps can be taken to improve care for elderly patients. Programs such as CGA can increase both physician and patient awareness and management of the complex nature of medical care for older patients, coordinating treatment on multiple dimensions in the biopsychosocial model of treatment.

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References
Adelman RD, Greene MG, Charon R. 1991. Issues in physician-elderly patient interaction. Aging and Society, 11:127–48.
Adelman RD, Greene MG, Charon R, et al. 1992. The content of physician and elderly patient interaction in the medical primary care encounter. Communication Research, 19(3):370–80.
Adelman RD, Greene MG, Ory MG. 2000. Communication between older patients and their physicians. Clin Geriatr Med, 16(1):1–24, vii.
Aita V, McIlvain H, Backer E, et al. 2005. Patient-centered care and communication in primary care practice: What is involved? Patient Educ Couns, 58(3):296–304.
Alexopoulos GS. 2005. Depression in the elderly. Lancet, 365:1961–70.
Ambady N, Laplante D, Nguyen T, et al. 2002. Surgeons’ tone of voice: A clue to malpractice history. Surgery, 132(1):5–9.
Anderson LM, Scrimshaw SC, Fullilove MT, et al. 2003. Culturally competent healthcare systems – A systematic review. Am J Prev Med, 24(3):68–79.
Anderson LM, Wood DL, Sherbourne CD. 1997. Maternal acculturation and childhood immunization levels among children in Latino families in Los Angeles. Am J Public Health, 87:2018–22.
Apter AJ, Reisine ST, Affleck G, et al. 1998. Adherence with twice-daily dosing of inhaled steroids. Socioeconomic and health-belief differences. Am J Respir Crit Care Med, 157(6 Pt 1): 1810–17.
Ashton CM, Haidet P, Paterniti DA, et al. 2003. Racial and ethnic disparities in the use of health services: Bias, preferences, or poor communication? J Gen Intern Med, 18(2):146–52.
Bach PB, Cramer LD, Warren JL, et al. 1999. Racial differences in the treatment of early-stage lung cancer. N Engl J Med, 341:1198–1205.
Badger LW, DeFruy FV, Hartman J, et al. 1994. Patient presentation, interview, consent, and the detection of depression by primary care physicians. Psychosomatic Medicine, 56:128–35.
Baker DW, Parker RM, Williams MV, et al. 1996. The health care experience of patients with low literacy. Arch Fam Med, 5(6):329–34.
Baker DW, Sudano JJ. 2005. Health insurance coverage during the years preceding medicare eligibility. Arch Intern Med, 165(7):770–6.
Baron RS, Cutrona CE, Hicklin D, et al. 1990. Social support and immune function among spouses of cancer patients. J Pers Soc Psychol, 59(2):344–52.
Beach MC, Roter DL, Wang N, et al. 2006. Are physicians’ attitudes of respect accurately perceived by patient associated with more positive communication behaviors? Patient Educ Couns, 62(3):347–54.
Belcher VN, Fried TR, Agostini JV, et al. 2006. Views of older adults on patient participation in medication-related decision making. J Gen Intern Med, 21(4):298–303.
Berkman LF, Syme SL. 1979. Social networks, host resistance, and mortality: A nine-year follow-up study of alameda county residents. Am J Epidemiol, 109(2):186–204.
Berkasik KD, Roter D, Putnam SM. 1991. The relationship of physician medical interview style to patient satisfaction. J Fam Pract, 32(2):175–81.
Besdine R, Boult C, Brangman S, et al. 2005. Caring for older Americans: The future of geriatric medicine. J Am Geriatr Soc, 53(6 Suppl): S245–56.
Betancourt JR, Carrillo JE, Green AR. 1999. Hypertension in multicultural and minority populations: Linking communication to compliance. Curr Hypertens Rep, 1(6):482–88.
Borowsky SJ, Rubenstein LV, Meredith LS, et al. 2000. Who is at risk of nondetection of mental health problems in primary care? J Gen Intern Med, 15(6):381–88.
Brasher DS, Haas SM, Neidig JL. 1999. The patient self-advocacy scale: Measuring patient involvement in health care decision-making interactions. Health Communication, 11(2):97–121.
Brody H. 1999. The biopsychosocial model, patient-centered care, and culturally sensitive patients. *Pract*. 48:585–87.

Brown JB, Brett P, Stewart M, et al. 1998. Roles and influence of people who accompany patients on visits to the doctor. *Canadian Family Physician*, 44:1644–50.

Burnam AM, Hough RL, Kanno M, et al. 1987. Acculturation and lifetime prevalence of psychiatric disorders among Mexican Americans in Los Angeles. *J Health Soc Behav*. 28:89–101.

Callahan EJ, Bertakis KD, Azari R, et al. 2000. The influence of patient age on primary care resident physician-patient interaction. *J Am Geriatr Soc*, 48(1):30–35.

Carney SS, Rich CL, Burke PA, et al. 1994. Suicide over 60: The San Diego study. *J Am Geriatr Soc*. 42:174–80.

Carney RM, Freedland KE. 2003. Depression, mortality, and medical morbidity in patients with coronary heart disease. *Biol Psychiatry*, 54(3):241–247.

Cegala DJ, Marinelli T, Post DM. 2000. The effect of patient communication skills training on treatment compliance in primary care. *Arch Fam Med*. 9:57–64.

Cegala DJ, Post DM, McClure L. 2001. The effects of patient communication skills training on the discourse of older patients during a primary care interview. *J Am Geriatr Soc*. 49(11):1505–11.

Charon R. 2001. The patient-physician relationship. Narrative medicine: A model for empathy, reflection, profession, and trust. *JAMA*, 286(15):1897–1902.

Chen H, Landefeld SC. 2007. The hidden poor: Care of the elderly. In: King WM (ed). Medical management of vulnerable and underserved patients. McGraw-Hill: New York. p. 199–209.

Cheurning B, Sleath B. 1996. Medication decision-making and management: A client-centered model. *Soc Sci Med*, 42(3):389–98.

Coe RM, Prendergast CG, Psathas G. 1984. Strategies for obtaining compliance with medications regimens. *J Am Geriatr Soc*, 32(8):589–94.

Comstock LM, Hooper EM, Goodwin JM, et al. 1982. Physician behaviors that correlate with patient satisfaction. *J Med Educ*. 57(2):105–12.

Corwell Y. 1994. Suicide in the elderly. In: Schneider LS, Reynolds SFI, Lebowitz et al. (eds). Diagnosis and treatment of depression in late-life. American Psychiatric Press: Washington, D.C.

Cooper-Patrick L, Gallo JJ, Gonzales JJ, et al. 1999. Race, gender, and partnership in the patient-physician relationship. *JAMA*, 282(6):583–89.

Croghan TW, Tomlin M, Pescosolido BA, et al. 2003. American attitudes toward and willingness to use psychiatric medications. *J Nerv Ment Dis*, 191(3):166–74.

DiMatteo MR, DiNicola DD. 1982. Achieving patient compliance: The psychology of the medical practitioner's role. Peramgon Press.

DiMatteo MR, Lepper HS, Croghan TW. 2000. Depression is a risk factor for noncompliance with medical treatment. *Arch Intern Med*, 160:2101–07.

DiMatteo MR, Giordani PJ, Lepper HS, et al. 2002. Patient adherence and medical treatment outcomes: A meta-analysis. *Med Care*, 40(9):794–811.

DiMatteo MR, Martin LR. 2002. Health Psychology. Allyn and Bacon: Boston.

DiMatteo MR. 2004a. Social support and patient adherence to medical treatment: A meta-analysis. *Health Psychol*, 23(2):207–18.

DiMatteo MR. 2004b. Variations in patients' adherence to medical recommendations: A quantitative review of 50 years of research. *Med Care*, 42(3):200–9.

Dunbar-Jacob J, Schlenk E. 2001. Patient adherence to treatment regimen. Law Mahwah: Erlbaum.

Epstein RM, Franks P, Shields CG, et al. 2005. Patient-centered communication and diagnostic testing. *Ann Fam Med*, 3(5):415–421.

Feldman HA, McKinlay JB, Potter DA, et al. 1997. Non-medical influences on medical decision making: An experimental technique using videotapes, factorial design, and survey sampling. *Health Serv Res*, 32:343–66.

Ferguson WJ, Candib LM. 2002. Culture, language, and the doctor-patient relationship. *Fam Med*, 34(5):353–61.

Gazmararian JA, Baker DW, Williams MV, et al. 1999. Health literacy among Medicare enrollees in a managed care organization. *JAMA*, 281(6):545–51.

German PS, Shapiro S, Skinner EA, et al. 1987. Detection and management of mental health problems of older patients by primary care providers. *JAMA*, 257:489–93.

Good MI, Good BI, Cleary PD. 1987. Do patient attitudes influence physician recognition of psychosocial problems in primary care? *J Fam Pract*. 25(1):53–59.

Gordon HS, Street RL, Jr., Kelly PA, et al. 2005. Physician-patient communication following invasive procedures: an analysis of post-angiogram consultations. *Soc Sci Med*, 61(5):1015–25.

Greene MG, Hoffman S, Charon R, et al. 1987. Psychosocial concerns in the medical encounter: a comparison of the interactions of doctors with their old and young patients. *Gerontologist*, 27(2):164–68.

Greene MG, Adelman RD, Friedman E, et al. 1994a. Older patient satisfaction with communication during an initial medical encounter. *Soc Sci Med*, 38(9):1279–88.

Greene MG, Majerovitz SD, Adelman RD, et al. 1994b. The effects of the presence of a third person on the physician-older patient medical interview. *Journal of the American Geriatric Society*, 42(4):413–19.

Greene MG, Adelman R. 1996. Psychosocial factors in older patients' medical encounters. *Research on Aging*, 18(1):84–102.

Greene MG, Adelman RD, Majerovitz DS. 1996. Physician and older patient support in the medical encounter. *Health Communication*, 8(3):263–79.

Greene MG, Adelman RD. 2003. Physician-older patient communication about cancer. *Patient Educ Couns*, 50:55–60.

Greenfield S, Kaplan S, Ware JE. 1985. Expanding patient involvement in care: Effects on patients' outcomes. *Ann Intern Med*, 102:520–28.

Gurung RA, Taylor SE, Seeman TE. 2003. Accounting for changes in social support among married older adults: Insights from the MacArthur studies of successful aging. *Psychol Aging*, 18(3):487–96.

Hall JA, Roter DL, Katz NR. 1988. Meta-analysis of correlates of provider behavior in medical encounters. *Med Care*, 26(7):657–75.

Hall JA, Harrigan JA, Rosenthal R. 1995. Nonverbal behavior in clinician patient interaction. *Applied and Preventive Psychology*, 4(1):21–37.

Halter JB. 1999. The challenge of communicating health information to elderly patient view from geriatric medicine. Lawrence Erlbaum Associates Publishers: Mahwah.

Hays RD, Kravitz RL, Mazel RM, et al. 1994. The impact of patient adherence on health outcomes for patients with chronic disease in the medical outcomes study. *J Behav Med*, 17(4):347–60.

Hetzel L, Smith A. 2001. The 65 years and over population: Census 2000 brief, US Census Bureau.

Hinrichsen GA, Clougherty K. 2006. *Gerontology*: Exploring the worlds of older adults. American Psychological Association: Washington, DC.

Holahan CK, Holahan CJ. 1987. Self-efficacy, social support, and depression in aging: A longitudinal analysis. *J Gerontol*, 42(1):65–88.

Hooper EM, Comstock LM, Goodwin JM, et al. 1982. Patient characteristics that influence physician behavior. *Med Care*, 20(6):630–38.

Jacobs EA, Karavolos K, Rathouz PJ, et al. 2005. Limited English proficiency and breast and cervical cancer screening in a multiethnic study. *Soc Sci Med*, 61(5):1015–25.

Jahng KH, Martin LR, Golin CE, et al. 2005. Preferences for medical collaboration: Patient-physician congruence and patient outcomes. *Patient Educ Couns*, 57(3):308–14.

Kaplan SH, Greenfield S, Ware JE. 1989. Assessing the effects of physician-patient interactions on the outcomes of chronic disease. *Med Care*, 27:S110–23.

Kaplan SH, Gandek B, Greenfield S, et al. 1995. Patient and visit characteristics related to physicians' participatory decision-making style. Results from the medical outcomes study. *Med Care*, 33(12):1176–87.
Robert Wood Johnson Foundation. 2002. New survey shows language barriers causing many Spanish-speaking Latinos to skip care.

Rost K, Roter D. 1987. Predictors of recall of medication regimens and recommendations for lifestyle change in elderly patients. Gerontologist, 27(4):510–15.

Rost K, Frankel R. 1993. The introduction of the older patient's problems in the medical visit. J Aging Health, 5(3):370–41.

Roter DL, Hall JA, Katz NR. 1988. Patient-physician communication: A descriptive summary of the lit. Netherlands: Elsevier Science.

Roter DL, Hall JA. 1989. Studies of doctor-patient interaction. Annu Rev Public Health, 10:163–80.

Roter DL, Stewart M, Putnam SM, et al. 1997. Communication patterns of primary care physicians. JAMA, 277(4):350–6.

Roter DL, Frankel RM, Hall JA, et al. 2006. The expression of emotion through nonverbal behavior in medical visits. Mechanisms and outcomes. J Gen Intern Med, 21 Suppl 1:S28–34.

Rubenstein LZ. 1987. Geriatric assessment: An overview of its impacts. Clin Geriatr Med, 3(1):1–15.

Schulberg HC, Katon WJ, Simon GE, et al. 1999. Best clinical practice: Guidelines for managing major depression in primary medical care. J Clin Psychiatry, 60 Suppl 7:19–26; discussion 27–18.

Seeman TE, Lusignolo TM, Albert M, et al. 2001. Social relationships, social support, and patterns of cognitive aging in healthy, high-functioning older adults: MacArthur studies of successful aging. Health Psychology, 20(4):243–255.

Shi L, Starfield B, Politzer R, et al. 2002. Primary care, self-rated health, and reductions in social disparities in health. Health Serv Res, 37(3):529–50.

Silliman RA. 1989. Caring for the frail older patient: The doctor-patient-family caregiver relationship. Journal of General Internal Medicine, 4(3):237–41.

Sleath B, Rubin RH, Arrey-Wastavino A. 2000. Physician expression of empathy and positiveness to Hispanic and non-Hispanic white patients during medical encounters. Fam Med, 32(2):91–6.

Starfield B, Lenke KW, Herbert R, et al. 2005. Comorbidity and the use of primary care and specialist care in the elderly. Ann Fam Med, 3(3):215–22.

Stepanikova I, Cook KS. 2004. Insurance policies and perceived quality of primary care among privately insured patients: Do features of managed care widen the racial, ethnic, and language-based gaps? Med Care, 42(10):966–74.

Stewart MA. 1984. What is a successful doctor-patient interview? A study of interactions and outcomes. Soc Sci Med, 19(2):167–75.

Stewart MA. 1995. Effective physician-patient communication and health outcomes: A review. CMAJ, 152(9):1423–33.

Strakowski SM, Lonczak HS, Sax KW, et al. 1995. The effects of race on diagnosis and disposition from a psychiatric emergency service. J Clin Psychiatry, 56:101–7.

Street RL, Jr., Buller DB. 1988. Patients’ characteristics affecting physician-patient nonverbal communication. Health Communication Research, 15(1):60–90.

Street RL, Jr. 1991. Information-giving in medical consultations: The influence of patients’ communicative styles and personal characteristics. Soc Sci Med, 32(5):541–48.

Street RL, Jr., Krupat E, Bell RA, et al. 2003. Beliefs about control in the physician-patient relationship: Effect on communication in medical encounters. J Gen Intern Med, 18(8):690–16.

Street RL, Jr., Gordon HS, Ward MM, et al. 2005. Patient participation in medical consultations: Why some patients are more involved than others. Med Care, 43(10):960–9.

Stuck AE, Siu AL, Wieland D. 1993. Comprehensive geriatric assessment: MacArthur studies of successful aging. J Clin Psychiatry, 124(5):497–504.

Ruben JL, Greenfield S, Gandek B, et al. 1996. Characteristics of physicians with participatory decision-making styles. Ann Intern Med, 124(5):497–504.

Katon W, Sullivan MD. 1990. Depression and chronic medical illness. J Clin Psychiatry, 51 Suppl: 3–11; discussion 12–14.

Katon WJ, Unutzer J, Simon G. 2004. Treatment of depression in primary care: Where we are, where we can go. Med Care, 42(12):1153–57.

Keeler EB, Solomon DH, Beck JC, et al. 1982. Effect of patient age on duration of medical encounters with physicians. Med Care, 20(1):1011–8.

Krupat E, Irish JT, Kasten LE, et al. 1999. Patient assertiveness and physician decision-making among older breast cancer patients. Soc Sci Med, 49:449–57.

Leigh N, Gattellari M, Butow P, et al. 2001. Discussing adjuvant cancer therapy. J Clin Oncol, 19(6):1768–73.

Lin EH, Von Korff M, Katon W, et al. 1995. The role of the primary care physician in patients’ adherence to antidepressant therapy. Med Care, 33(1):67–74.

Lyness JM, Cox C, Curry J, et al. 1995. Older age and the underreporting of depressive symptoms. J Am Geriatr Soc, 43(3):216–21.

Makoul G. 1998. Perpetuating passivity: Reliance and reciprocal determinism in physician-patient interaction. J Health Commun, 3(3):233–59.

Maly RC, Leake B, Frank JC, et al. 2002. Implementation of consultative geriatric recommendations: The role of patient-primary care physician concordance. J Am Geriatr Soc, 50:1372–80.

Marvel MK, Epstein RM, Flowers K, et al. 1999. Soliciting the patient’s agenda: have we improved? JAMA, 281(3):283–7.

McWilliams JM, Zaslavsky AM, Meara E, et al. 2003. Impact of medicare coverage on basic clinical services for previously uninsured adults. JAMA, 290(6):757–64.

Mead N, Bower P. 2000. Patient-centredness: a conceptual framework and review of the empirical literature. Soc Sci Med, 51(7):1087–1110.

Miller W, Rollnick S. 1991. Motivational interviewing: Preparing people to change addictive behavior. New York: Guildford Press.

Milnoue S, Rosenthal R, Blane HT, et al. 1967. The doctor’s voice: postdoctoral referral of alcoholic patients. J Abnorm Psychol, 72(1):78–84.

Mitchell AJ, Subramaniam H. 2005. Prognosis of depression in old age compared to middle age: A systematic review of comparative studies. Am J Psychiatry, 162(9):1588–1601.

Mull JD. 1993. Cross-cultural Communication in the Physician’s Office. West J Med, 159:609–13.

Naumburg EH, Frankis PR, Bell B, et al. 1993. Racial differences in the identification of hypercholesterolemia. J Fam Pract, 36:425–30.

Neumeyer-Gromen A, Lampert T, Stark K, et al. 2004. Disease management programs for depression: A systematic review and meta-analysis of randomized controlled trials. Med Care, 42(12):1211–21.

Owens RL, Hertzog C, Crocco E, et al. 2006. Factors related to medication adherence in memory disorder clinic. Aging and Mental Health, 10(4):378–85.

Phillips KA, Mayer ML, Aday LA. 2000. Barriers to care among racial/ethnic groups under managed care. Health Aff (Millwood), 19(4):65–75.

Radecki SE, Kane RL, Solomon DH, et al. 1993. Racial differentials in the use of comprehensive geriatric assessment in the care of hospitalized patients. NEJM, 332:1345–50.

Reuben DB, Borok GM, Wolde-Tsadik G, et al. 1995. A randomized trial of comprehensive geriatric assessment in the care of hospitalized patients. N Engl J Med, 332:1345–50.

Reuben DB, Maly RC, Hirsch SH, et al. 1996. Physician implementation of and patient adherence to recommendations from comprehensive geriatric assessment. Am J Med, 100:444–51.
Tickle-Degnen LG. 2003. Changes in nonverbal behavior during the development of therapeutic relationships. Philippot, NY: Oxford University Press.

Todd N, Samaroo N, Hoffman JR. 1993. Ethnicity as a risk factor for inadequate emergency department analgesia. *JAMA*, 269:1537–9.

Uchino BN, Cacioppo JT, Kiecolt-Glaser JK. 1996. The relationship between social support and physiological processes: A review with emphasis on underlying mechanisms and implications for health. *Psychol Bull*, 119(3):488–531.

Uchino BN, Uno D, Holt-Lunstad J. 1999. Social support. Physiological processes, and health. *Current Directions in Psychological Science*, 8(5):141–8.

van Ryn M, Burgess D, Malat J, et al. 2006. Physicians' perceptions of patients' social and behavioral characteristics and race disparities in treatment recommendations for men with coronary artery disease. *Am J Public Health*, 96(2):351–7.

van Ryn M, Burke J. 2000. The effect of patient race and socio-economic status on physicians' perceptions of patients. *Soc Sci Med*, 50(6):813–28.

Vieder JN, Krafchick MA, Kovach AC, et al. 2002. Physician-patient interaction: What do elders want? *J Am Osteopath Assoc*, 102(2):73–8.

Wagner LS, Wagner TH. 2003. The effect of age on the use of health and self-care information: Concerning the stereotype. *Gerontologist*, 43(3):318–24.

Waitzkin H. 1984. Doctor-patient communication. Clinical implications of social scientific research. *JAMA*, 252(17):2441–6.

Willems S, De Maesschalck S, Deveugele M, et al. 2005a. Socio-economic status of the patient and doctor-patient communication: Does it make a difference? *Patient Educ Couns*, 56(2):139–46.

Willems SJ, Swinnen W, De Maeseneer JM. 2005b. The GP's perception of poverty: A qualitative study. *Fam Pract*, 22(2):177–83.

Williamson J, Stokoe IH, Gray S, et al. 1964. Old people at home. Their unreported needs. *Lancet*, 13:1117–20.

Winograd CH, Gerety MB, Lai NA. 1993. A negative trial of inpatient geriatric consultation: Lessons learned and recommendations for future research. *Arch Intern Med*, 153:2017–23.

Wittink MN, Barg FK, Gallo JJ. 2006. Unwritten rules of talking to doctors about depression: Integrating qualitative and quantitative methods. *Ann Fam Med*, 4(4):302–9.

Woloshin S, Schwartz LM, Katz SJ, et al. 1997. Is language a barrier to the use of preventive services? *J Gen Intern Med*, 12(8):472–7.
