Cancer, Culture, and Health Disparities

Time to Chart a New Course?

Marjorie Kagawa-Singer, PhD, MN, RN, FAAN1; Annalyn Valdez Dadia, MPH2; Mimi C. Yu, PhD3; Antonella Surbone, MD, PhD4

Abstract

Little progress has been made over the last 40 years to eliminate the racial/ethnic differences in incidence, morbidity, avoidable suffering, and mortality from cancer that result from factors beyond genetic differences. More effective strategies to promote equity in access and quality care are urgently needed because the changing demographics of the United States portend that this disparity will not only persist but significantly increase. Such suffering is avoidable. The authors posit that culture is a prime factor in the persistence of health disparities. However, this concept of culture is still poorly understood, inconsistently defined, and ineffectively used in practice and research. The role of culture in the causal pathway of disparities and the potential impact of culturally competent cancer care on improving cancer outcomes in ethnic minorities has, thus, been underestimated. In this article, the authors provide a comprehensive definition of culture and demonstrate how it can be used at each stage of the cancer care continuum to help reduce the unequal burden of cancer. The authors conclude with suggestions for clinical practice to eliminate the disconnection between evidence-based, quality, cancer care and its delivery to diverse population groups. CA Cancer J Clin 2010;60:12–39. ©2010 American Cancer Society, Inc.

Introduction

The American Cancer Society (ACS) established 3 major goals to be met by 2015: 1) to reduce cancer mortality by 50%, 2) to reduce cancer incidence by 25%, and 3) to improve the quality of life of cancer patients. Unfortunately, these goals will likely not be achieved unless disparities in cancer outcomes for the emerging racial/ethnic majority in the United States are eliminated.1 Among other necessary steps to address this need, the American Society of Clinical Oncology in its 2009 Policy Statement on Disparities in Cancer Care has identified culturally appropriate patient-centered care as a way to foster patients’ involvement in their care and their equal participation in clinical trials.2 The National Cancer Center to Reduce Cancer Health Disparities has this goal as their mission and has already adopted the 2005 Patient Outreach Navigator and Chronic Disease Prevention Act as part of promoting culturally sensitive cancer care.3

While cultural competency is recognized as key to reducing health disparities, the concept of culture and its relation to cancer remain poorly understood. Many epidemiologic studies have statistically demonstrated the limited explanatory power of the “known” biologic and social factors for the racial/ethnic differences in cancer incidence, morbidity, mortality, and quality of life4-9 and speculate that unmeasured cultural factors may be better indicators for these differences. Culture influences patients’ and communities’ perceptions of cancer risk, their trust in oncology professionals and institutions, and their approach to standard and experimental cancer treatments, and also plays a determinant role in individual professionals’ and institutions’ approach to minority patients—a key element now emerging in health-disparities research.
Therefore, it is time to establish a framework for oncology that explicitly incorporates culture and identifies promising strategies to augment clinical skills with culturally sensitive communication. The aims of this article are to suggest a definition of culture that could serve as the basis for this new effort and to demonstrate how the incorporation of culture could reduce cancer health disparities along the entire cancer care continuum.

Culture and the Disproportionate Burden of Cancer on Ethnic Minorities and Underserved Populations

Ethnic minority and medically underserved populations suffer disproportionate burdens of cancer.5 Ethnic “minorities” (a term historically applied to groups of color, ie, American Indian/Alaska native, African American, Latino/Hispanic, Asian American, Native Hawaiian, and Pacific Islander) are predicted to be the majority by 2050,10 and due to the aging and growth of communities of color, a 99% increase in incidence of cancers is anticipated for minorities, compared with a 31% increase for whites.1 For example, the number of new cancer cases among Asian Americans and Pacific Islanders will increase by 132%. Asian Americans and Pacific Islanders are also the groups with the lowest cancer screening rate of all ethnic groups, and several of their subgroups have a higher percentage of late-stage diagnoses.11 Notably, the aggregation of all diverse groups within each of the racial/ethnic categories hides the most vulnerable populations.

Despite epidemiologic evidence, extensive documentation, and research dollars spent, little progress had been made during the last 40 years in eliminating avoidable burdens of suffering and death among ethnic minority populations.12 We contend that missing, thus far, is an accurate understanding of the complex, multifaceted relation between culture and cancer and an integration of a more scientific concept of culture that would enable oncology professionals to provide quality cancer care equally to all their patients.

The impact of culture on cancer outcomes is bidirectional. The patient’s and his or her family’s culture influences the meanings assigned to the threat of cancer and their response to both the disease and the healthcare system.13 Those who have the poorest outcomes for cancer are also often members of groups who face greater structural barriers to quality care. Unequal distribution of funding for hospitals caring for minorities results in a lower quality of cancer care available to minority patients. A 2009 study of quality of care and surgical mortality after breast or colon cancer surgery found that lower quality care was a major determinant of disparities in outcome between minority populations and those who belong to the dominant culture, yet cultural and economic factors at the system level are less often studied. Such system-level factors and practitioner practices, for example, differential treatment, likely contribute to lower screening rates, later stage at diagnosis, and higher morbidity and mortality rates for members of minority populations.14

Sociocultural values are also linked to cancer outcomes through beliefs, attitudes, and behaviors related to prevention and screening, provider-patient relationships and interactions, and adherence to medical treatments.15 Yet “culture” is still poorly understood, and what is known about addressing cross-cultural differences, eg, cultural competency, is still insufficiently applied in the clinical setting.16

For example, no consensus exists in the literature on the definitions of what is meant by the various terms employed to define sociocultural constructs. A critical review of studies published between 1990 and 2006 on the use of sociocultural constructs in cancer-screening research among African Americans found that terms were seldom clearly defined, and sources and psychometric properties of sociocultural measures were rarely reported.17 These and other results suggest an urgent need for proper standardization of definitions and measures before research in health disparities can advance. The International Committee of Medical Journal Editors recognized this confusion and established guidelines for publication of studies with multiple ethnic groups that require authors to provide explicit statements about the necessity for racial/ethnic comparisons, descriptions of how groups are identified, options provided for respondents, and indications of how categories are grouped for analysis.18 Implementation of these guidelines would enable clinicians to more confidently compare results across studies and to apply these findings to their practice.
In the meantime, oncologists are left to use their own definitions of culture, race, and ethnicity, opening the potential for false assumptions and miscommunication. A recent study by The Commonwealth Foundation found that groups of color had the lowest rates of confidence in obtaining quality care from their physicians. More than 52% of non-Hispanic Whites were confident they would receive good quality healthcare in the future compared with 47% of African Americans, 40% of Hispanics, and 39% of Asian Americans. Ethnic minority patients were also reported to receive less information than non-Hispanic white patients. In some cases, however, it is individual physicians who may carry unconscious biases toward minority patients. Finally, mistrust may originate from physicians’ inability to genuinely connect with their patients, which impedes development of the therapeutic alliance between cancer patients and oncology professionals. These communication difficulties are largely due to lack of oncology education and training in cultural competence for professionals. Trust in the clinician is fundamental to improved outcomes. Therefore, an additional objective of our article is to enable clinicians to create the rapport necessary to build trust between physicians and families in culturally discordant clinical encounters.

The acquisition of cultural competence and communication skills by oncology professionals is necessary to maximize health outcomes for individual patients and their families, for cultures are not monolithic. Minority patients and families possess various levels of ability to function comfortably in the mainstream culture, due to either age, education, income, family structure, gender, wealth, foreign versus US-born status, immigrant status, and/or social and historical experience with discrimination for US-born individuals, which all modify the degree to which one’s cultural group membership may influence health practices and health status. In addition, individuals hold various degrees of adherence to traditional customs within the same community or family. Presence of unresolved conflicts may also influence perspectives of illness and death. The views of different family members may be inconsistent, or they may mask underlying conflicts within the family. With better awareness and knowledge, oncology professionals would be able to discern cultural differences from individual idiosyncrasies and recognize when such variations deserve referral to experts in psychology or psycho-oncology.

**Barriers of Racial/Ethnic Categories**

Categorization of individuals by racial group creates barriers to understanding culture. The US Office of Management and Budget (OMB) established racial/ethnic categories that are monolithic, static, and monocultural. The OMB explicitly states, however, that their 7 racial and ethnic categories (race includes Whites, African Americans, Asian Americans, Native Americans, Native Hawaiians and other Pacific Islanders, and ethnicity includes Hispanic or non-Hispanic) are to be understood only as sociopolitical categories, yet these racial/ethnic categories continue to be used in healthcare with little consistency in meaning. Moreover, each of the 7 racial/ethnic categories has multiple, diverse subgroups with different cancer risks and responses. For example, because some Mexican Americans lived in the Southwest before its acquisition from Mexico by the United States in the 1840s and 1850s, these families are culturally different from those who migrated from Mexico to the United States during the last few decades. Caribbeans of African heritage are quite different from African Americans or Africans from continental Africa. The category of Asian American is comprised of more than 37 different ethnic groups; Pacific Islander includes about 25 nationalities; and American Indian and Alaska Native comprise more than 575 federally recognized tribes and more than 300 other tribes, each with their own language and culture.

In a multicultural society such as the United States, each cultural group contemporaneously undergoes modifications and mixtures that result in a culture that is different from its origins, rendering it uniquely American. Multiracial individuals also compose a growing population. Thus, generalizations based upon racial categories should be avoided, and more frequent reporting by subgroup category would be scientifically more accurate and clinically applicable.

An example of the implicit bias created by using racial groups in health research is that the group to
which all others are compared is usually non-Hispanic white (NHW) because they are the largest racial/ethnic population in the United States and the group for which we have the most data. Scientifically, however, the NHW comparison group is also highly diverse in their concepts of health, lifestyle, and healing systems. The NHW category is an aggregate of numerous nationalities and subgroups, just as the other racial/ethnic categories are, and just as culturally and geographically variant. Middle Easterners are, according to the OMB, considered white; this aggregation also combines Northern and Eastern Europeans with Mediterranean nationalities as well. With changing demographics and recognition of racial/ethnic group heterogeneity, a more useful comparison may instead be made of any group against a reference group with either the worst or the best outcomes to identify the most protective and health-promoting beliefs and practices of diverse cultural groups as well as their risk factors. However, thinking of members of these groups as homogeneous and discrete categories is problematic. Globalization of the world leads to the diffusion of cultural life styles and to the use of particular, traditional cultural practices, such as Traditional Chinese medicine or Ayurvedic medicine, and other lifestyle habits in the form of physical activity, diet, smoking, and so forth, by members of cultures other than the traditional ones where these practices originated; thus, making assumptions about cultural practices by racial/ethnic group is potentially invalid.

To understand the influence of culture on cancer, it is first necessary to untangle the confusion over definitions of race, biology, ethnicity, and culture and to carefully examine the assumption that socioeconomic factors trump race, culture, and ethnicity. Instead, it is the interaction of all these factors that determines health disparities, and more clarity will increase the scientific basis for clinical practice and research among diverse populations.

Definitions of Race, Racism, Biology, Socioeconomic Status, Ethnicity, and Culture

As noted, the health literature lacks clear, standardized definitions for culture, race, and ethnicity. In a retrospective chart review of 2 clinics within the same healthcare system, designations for race/ethnicity differed, and the data-entry system used by admitting clerks differed between the 2 clinics. Demographic classification was not based on patient self-report and was left to the discretion of admitting clerks who had little guidance or training. In a telephone call to patients, researchers discovered that the error rate (patients’ self-reports differing from the way they were categorized in a clinical database) was 33% of 81 respondents in 1 setting and 22% of 59 respondents in the other setting. Misclassification of this magnitude has ominous implications for validity and reproducibility of studies that use these race/ethnicity data. Therefore, we present definitions as a starting point to discuss the impact of each construct.

Race and Racism

Race as a construct was developed from the belief that races represent subspecies of Homo sapiens, and, therefore, one's phenotype was believed to be indicative of one's genotype and potential for moral character. Investigation proved this false in the 1940s and definitively so by the human genome project. The 7 OMB-defined racial/ethnic categories are required for federal regulation but not science. Rather than classification by race, oncologists could strive for patient-centered culturally based care in which relevant information would be collected in the patient’s social history under the category of ethnicity. Questions guided by this perspective would elicit information about the patient’s lifestyle, beliefs, and values, and consider the cultural, social, and political context of ethnicity in its complexity. For example, clinical case presentations often include a racial designation as a gloss for cultural practices and potential genetic information, such as “a 65-year-old Chinese male presents with chronic sinus infection.” The risk of nasopharyngeal cancer is related to particularly highly salted preserved fish eaten since infancy in southern parts of China but is not a common cancer site for American-born Chinese. This patient may be a college professor and fifth generation US citizen who lives a very Westernized lifestyle or a recent immigrant from Southern China who is very poor, has minimal formal education, and has limited health literacy. His designation simply as “Chinese” alone would, therefore, provide little, if any, useful information relevant to his cancer risk and his ability to interact with healthcare professionals.
The most pernicious extension of the inchoate and purposeful use of race is the power of racism that impacts the well-being of all communities of color in the United States. *Racism* is defined as the assertion of power, ego fulfillment, and status at the expense of others based on skin color. Each of the groups of color in the United States has had a unique experience with the dominant US society, but each has shared the common experience of oppression and segregation based on their skin color. Understanding how the social determinants of health, such as legal and social restraints, and how ethnocentrism and racism impact cancer outcomes are new frontiers in cancer research.

**Biology**

Genetic polymorphisms within and across different population groups have usually evolved in various ecologic niches as adaptive characteristics for survival, but these genetic changes do not equal race. Examples are hemoglobin S among those of African and Mediterranean descent and certain glucose-6-phosphate dehydrogenase (G6-PD) polymorphisms throughout the Mediterranean region and in some Southeast Asian groups. The heterozygous state of such polymorphisms confers a resistance to malaria in these regions where malaria is endemic.

Some genetic variations have been discovered that put particular population groups at elevated risk for cancer, such as the potential relation between prostate cancer and polymorphisms in the chromosome 8q24 region in men of African ancestry; however, such differences are believed to account for a relatively small proportion of overall human cancers. The more malleable factors affecting health disparities are potential epigenetic interactions with behavior or lifestyle choices, such as diet and physical activity.

Triple-negative breast cancer (lacking expression of estrogen receptor, progesterone receptor, and HER2 protein) is particularly common among African American women, but this association may actually be the result of socioeconomic forces on gene expression rather than population group characteristics. Thus, behaviors and sociocultural contexts have been shown to be major explanatory factors in the development of certain forms of cancer and largely account for differences in cancer rates across population groups. Understanding culture and its interaction with the environment will, thus, improve our cancer control efforts.

**Social and Economic Status**

Most literature on health disparities has identified the social determinants of health, such as education, occupation, social status, housing, availability of quality services, health literacy, and degree of integration into a community social network, as powerful factors affecting cancer outcomes. These factors result in a social (as in class differences), economic, and educational gradient in this country under which those with lower resources fare worse in health and well-being. Studies often note, however, that social determinants do not account for all variances in racial/ethnic outcomes and that if socioeconomic status (SES) and culture were disentangled, then we would be better able to identify the specific role of cultural differences. However, this is not possible, because it is the interaction of these tightly interwoven constructs that impacts health, and again, culture remains amorphous.

**Ethnicity**

Ethnicity is defined as one’s sense of identity as a member of a cultural group within a power structure of a multicultural society and as identified by others as a member of that group on the basis of sociohistorical context. Thus, ethnicity is socially constructed, contextual, and dynamic. How individuals identify with their ethnicity can be separate from their phenotypic experience, but yet ethnicity is essential to their sense of self and the lifestyles they choose. For example, consider a middle-aged woman of Korean heritage who was adopted as an orphan by a non-Hispanic white family of German heritage in Wisconsin. She never experienced Korean culture and ethnically identified completely as an NHW. Therefore, she had none of the behavioral risk factors typical of her Korean ancestry, such as ingesting pickled or fermented foods, smoking, or drinking alcohol. Her social experience as someone who looks “different” from her NHW community, however, may impact how she responds to health professionals or how the healthcare system reacts to her.
Culture

Culture is the core, fundamental, dynamic, responsive, adaptive, and relatively coherent organizing system of life designed to ensure the survival and well-being of its members and is shared always to find meaning and purpose throughout life and to communicate caring. This system comprises beliefs, values, and lifestyles to enable successful adaptation within a biotic and abiotic geographic niche by using available technology and economic resources (Fig. 1).29 For example, different tools are used by every cultural group to manipulate the environment for food and shelter, to make cognitive and emotional sense of the chaos of reality around them, to find meaningful, structured modes of interpersonal and institutional social interaction to support the well-being of its members. Importantly, culture, through its worldview or construction of reality, provides a way to make sense of life events, especially during trying times, such as when a person develops cancer.

Through specific beliefs, values, and rituals, this worldview makes sickness and death more comprehensible and manageable. It shapes appropriate emotional reactions and behavioral responses to the disease and how one’s social network communicates caring, provides safety, and social support. Thus, diet, marriage rules, social roles, and means of livelihood that influence gene expression, health status, and disease prevalence are largely culturally prescribed and proscribed.37 Table 1 lists the 7 nested components of culture that determine its structure and function.38

Culture, then, is the multilevel, multidimensional, dynamic, biopsychosocial, and ecological system in which a population exists, and it is not merely a collection of beliefs and values interchangeable with the northern European-American dominant culture.39 Because these factors vary and develop dynamically in response to geographic, social, and political circumstances, cultures evolve differently. Any effort to apply the concept of culture in medical practice would require an assessment at each of the model’s levels and across time.

Differentiation of the terms described above, race, racism, culture, and ethnicity, enable us to talk about their separate contributions to health disparities, while recognizing that the impact on health is due to their interaction with other factors composing the social determinants of well-being. The current lack of precision in the use of these terms, at best, results in misleading assumptions about individuals40,41 and impedes our ability to recognize the contribution of each concept to cancer outcomes along the entire continuum of care.42

The social history part of the patient’s history and physical is part of the basic information required in any medical encounter. Whereas some elements of culture are already elicited in the social history, oncologists could more fully appreciate the impact of culture on the meaning and experience of cancer and its treatment for patients and families by including key information at all 7 levels of culture. Obtaining a more comprehensive sociocultural history would

| TABLE 1. Hammond’s Seven Nested Layers of Culture40 |
|-----------------------------------------------|
| 1    | Environment                          |
| 2    | Economy                              |
| 3    | Technology                           |
| 4    | Religion/World View                  |
| 5    | Language                             |
| 6    | Social Structure                     |
| 7    | Beliefs and Values                   |

**FIGURE 1.** Depicted is the ecologic model.36 Reprinted from Kagawa-Singer M. From genes to social science: impact of the simplistic interpretation of race, ethnicity, and culture on cancer outcome. Cancer. 2001;91(1 suppl):226-232. © 2001 American Cancer Society. This material is reproduced with permission of Wiley-Liss, Inc., a subsidiary of John Wiley & Sons, Inc.
likely require that additional time be invested by oncologists in their initial consultations with patients, but this initial time and effort could prove to save time by helping to establish a trusting relationship with more open communication about the patient’s perspective, cultural beliefs, and preferences. The initial temporal investment would likely prevent many cultural misunderstandings and conflicts and, thus, provide more culturally informed and sensitive cancer care, which would be more cost effective over time.

Interactions between Culture and Cancer

Every population has a culture, including the dominant European American US culture. Each cultural group has a unique set of traits and characteristics, including health advantages (or disadvantages). This finding partly explains why site-specific and overall cancer incidence rates differ across cultural groups within the United States and internationally. Cancer rates for immigrants, however, change and mirror those of the host culture as immigrants adopt cultural and lifestyle practices of their host country, and this usually occurs within 1 generation (such cancers as breast, colon, and prostate) and is primarily associated with lifestyle. By identifying which complex of behaviors are cancer-promoting or cancer-inhibiting within ethnic groups with various patterns of genetic polymorphisms and/or admixtures and cancer risks, we could further our understanding of how epigenetic interactions impact oncogenesis and would also identify more targeted means to intervene in environment, behavior, and nutrition to positively influence such changes.

Cultural differences, however, must not be viewed as only within an immigrant context. Integration of the social and historical context of every population is essential. The cancer health disparities of the American Indian, Alaska Native, Native Hawaiian, and Pacific Islander cannot be understood without acknowledging the reality of their treatment by the United States and the history of the legal structure of our institutions of both commerce and education for these indigenous peoples. Their efforts to adapt to segregation, discrimination, cultural destruction, and limited access to resources such as education and employment have been fueled by their sense of pride in their identity and life ways, and have enabled them to survive under oppressive social and political circumstances. Unless proven to be unnecessary and supplanted with viable options, such cultural practices will be maintained even if some strategies are now maladaptive. The power of sociohistorical context also is highlighted in ethnic enclaves among the diverse non-Hispanic white population as well, where ethnic enclaves (Little Italy and Irish areas or towns) still exist, and memories of exclusion and discrimination are still alive. Geographic differences in the United States reflect these histories and should be considered by the clinician, as these geographic and political histories influence the patient’s and family’s reaction to and views about cancer and which hospitals and in what parts of town they may be treated—by choice or circumstance.

Applying the Concept of Culture

Assessment of the 7 components of culture, ranging from the environment, economy, technology, religions/world views, language, and social structures to the more commonly familiar levels of family structure and individual and cultural beliefs and values requires viewing culture as a system of components that function for a purpose rather than an exotic collection of traits. Environment is not only the physical surrounding but also how society defines the sociohistorical context of each community and interactions between communities. Economy involves finances but encompasses the types of jobs that specific populations choose, or have been restricted to, to generate income (eg, nail salons in some parts of the United States are dominated by Vietnamese Americans). Similarly, technology focuses on resources available to business owners and workers and should include an assessment of the degree of expertise, job qualifications, and level of education attained by immigrants both in their home country and in the United States that would be needed to accomplish specific goals. By contrast, minority populations are often involved in low-wage jobs, regardless of the individual minority member’s capacities and qualifications.

Culture also frames attitudes toward gender roles, concepts of health and suffering, meaning of body parts, and decisions about life, illness, death, religion, and world view. The social structures of families, the decision-making pattern of the group, and the im-
pact of characteristics such as gender, age, or community status on decision-making may vary in important ways. Moreover, cultural beliefs and values are not static. They often change over time for individuals, as well as generationally for the group, especially when interactions occur in multicultural settings.

In analyzing cultural differences, cultures must first be viewed as whole fabrics. Too often in testing ethnic group differences, specific, discrete, cultural beliefs and behaviors, like a single thread in a cultural tapestry, are removed and compared across cultural groups for their inherent characteristics. The usefulness of the thread or particular belief or behavior cannot be judged unless seen within the pattern of the entire cultural fabric within which they are meant to function.26,49

A common example in oncology is the protective role that families in many non-Northwestern European cultures assume toward cancer patients, shielding them from painful truths by asking oncologists to withhold information about the diagnosis and prognosis and taking upon themselves the responsibility for deciding upon treatment or end-of-life choices. For example, an elderly, non-English–speaking Persian man was admitted to the hospital with severe abdominal pain due to end-stage pancreatic cancer. His family refused to have the grandfather informed of his diagnosis. He was told, instead, that he had gallstones and would have surgery to remove the stones, when, in fact, the true purpose was to debulk the tumor to relieve his pain. Disagreements and conflicts concerning truth-telling can be resolved only by respecting the different values and norms of patients and families, while at the same time making clear that US oncology professionals are bound by the ethical and legal norms of their country of practice, by explaining to families that the rationale for disclosure is to respect cancer patients and to involve them in treatment decisions for their own benefit, and, importantly, that individuals with cancer in the United States no longer carry the stigma related to cancer as they may in other countries.50,51 To do so, oncology professionals need to know that the practices of nondisclosure that persist in many countries, despite a major shift toward more open communication with cancer patients worldwide in the past decade, can only be judged as paternalistic when considered outside the cultural context in which they occur. Reluctance to disclose the truth to cancer patients can be understood in light of the difference between family and community-centered societies versus a more individual-centered Western society.52

Through better understanding of cultural differences in discordant clinical encounters, not only would clinicians avoid displaying dangerous judgmental attitudes toward their patients and families, but they would also establish better communication, which, in the context of a trusting ongoing patient–doctor relationship, would help to foster the patient’s ability to fully participate in their care at each stage of the cancer care continuum.50

Indeed, when members of cultural groups immigrate, or when they adopt technologies and practices from other cultural groups, the “fit” of these new elements may not necessarily connect in a coherent or coordinated manner within its subgroups or even within families. Members of cultural groups, however, are very diverse and run the gamut of adherence to traditional cultural beliefs and practices. Failure to acknowledge the effects of accommodations to other cultures and the fluidity of cultural beliefs and practices leads to erroneous presuppositions and stereotyping of cancer patients and their families from particular cultural groups. Assuming that all new patients coming from a Mediterranean or Islamic country do not wish to be informed of a cancer diagnosis, and acting on this assumption, is an example of an incorrect and incomplete understanding of culture. Patients’ and families’ information needs and preferences also change during the course of the illness, under the positive influence of a secure relationship with their oncologists who communicate in a culturally sensitive way, and explain the rationale behind the alternatives in a manner the patient and family can understand and without taking away hope.

Advances in medical technology have outstripped the training and comfort of most healthcare professionals to wrestle with and to communicate with each other about mortality and suffering, let alone feel confident enough to provide such information to patients and their families. Medical ethicists, religious leaders, and community elders can help staff and families work through these problems. Such negotiations take time, compassion, and the ability to communicate caring. A trained professional is also essential to help staff reflect on the source of their own dis-
comfort due to their cultural beliefs and values about what is “right” and to help them understand the cultural relativity of such scenarios.\textsuperscript{53-55} Many leading organizations and institutions also provide courses on “giving bad news” to oncologists in training and as part of continuing medical education, but how to provide information and support concerning whom to tell, when, how, and how much in a culturally sensitive manner is still in its developmental phase.\textsuperscript{52-56}

Factors Contributing to Health Disparities
The 2002 Institute of Medicine report defined health disparities\textsuperscript{7} as the overall variance between outcomes of non-Hispanic white and minority groups after controlling for education, income, and age. Figure 2\textsuperscript{7} depicts the IOM factors that contribute to variances in health outcomes in 3 categories: Difference due to 1) Clinical appropriateness and need patient preferences for type of care offered, 2) Disparity due to the operation of the healthcare system and the legal and regulatory climate, and 3) Discrimination, comprised of biases, prejudice, stereotyping, and uncertainty.\textsuperscript{5} We modified the IOM figure to identify the fundamental and invisible forces that compose the 2 components of the Disparity category (2 and 3) and demonstrate that culture has also molded the institutions of our society with regard to healthcare provision and that particular segments of our society are better served by these institutions than are others. The 4 interdependent forces we identify as contributing to the section labeled “Disparity” in Figure 2 were covered in the introduction to this article: 1) biologic differences, 2) socioeconomic status, 3) race and racism, and 4) ethnicity and culture.

The invisibility of these forces is due to the ethnocentric world view of the group in power that sets the culture-bound nature of standards for how care is provided and how the goals of care are set. Culture, in most US studies, is addressed as existing only in the minority group or individual of color. Because little evidence exists to the contrary, the beliefs, values, modes of providing healthcare, interpersonal communication styles, and behavioral theories of the Northwestern European American majority are viewed as the norm against which all other ways of being are evaluated. By contrast, we posit that cancer disparities will persist until the delivery of cancer care is recognized to occur within a Northwestern European American cultural context and action is taken to create a system of cancer care that is socially equitable, not only by offering equal access to cancer care to all cancer patients regardless of their race, ethnicity, and socioeconomic status but also by being open to, and inclusive of, different cultural views of health and well-being and the means to achieve those ends.\textsuperscript{57}

Cancer Incidence and Mortality Rates by Race and Ethnicity
To illustrate the differential burden of cancer across all communities of color, we show some of the major trends in cancer incidence and mortality by using data from the California Tumor Registry\textsuperscript{58} because of the diversity of the state’s population, the ability to disaggregate the major racial/ethnic categories, and the geographic variations compared with other parts of the country. Overall cancer incidence rates for aggregated African Americans appear to have dropped to the same level as non-Hispanic whites. However, although mortality rates seem to have dropped for all groups (non-Hispanic white, African American, Hispanic, and Asian/Pacific Islander),\textsuperscript{58} the disparity between African Americans and non-Hispanic whites has decreased only slightly. The gap is not closing (Fig. 3).\textsuperscript{58}
Notably, however, the racial/ethnic groups used for reporting cancer incidence and mortality outcomes are highly diverse, and only when disaggregated do disparities across subgroups become visible. For example, Alaska Natives have rates of cancer often equal to or higher than African Americans, but data are rarely reported in this way. The incidence rate for colon and rectal cancers in Alaska Native women (70.1 per 100,000) is twice that of white women.59 Asian Americans are also highly heterogeneous, but their diversity is rarely properly accounted for. Except in California and Hawaii, cancer rates for Asian Americans are reported either as an aggregate group or not at all, reducing the ability of clinicians to identify the most vulnerable groups for prevention, screening, or early detection efforts, such as Native Hawaiian and Pacific Islander and some Hispanic groups, who show mortality rates above those of non-Hispanic whites and not decreasing, or as in the case of Koreans and Cambodians, for whom the incidence and mortality rates are rising.60-62

Impact of Culture on the Cancer Continuum

In the United States, each stage on the continuum of care occurs within the biopsychosocial-cultural milieu of the larger, dominant, European American society.26 In Northwestern European philosophy, the individual is viewed as autonomous, egalitarian, rational, self-assertive, and self-aware. These values are not held to the same degree by members of cultures that are more sociocentric or community-centered, as are the groups of color.52 These Eurocentric beliefs and values are rarely seen by members of the dominant ethos as culturally bound, and the universality of these beliefs and values is assumed. Therefore, beyond language differences, the impact of cultural differences on the nature and quality of the healthcare provided is usually not consciously evaluated because it is inadequately understood. By contrast, culturally competent and sensitive cancer care could have an immediate effect on improving disparities in cancer outcomes.63 In addition, because most researchers are from the dominant culture, they rarely evaluate the influence of the sociohistorical forces that have shaped, and continue to shape, the social determinants of the health status of minorities in the United States. Members of minority groups themselves recognize these forces, yet too few scientists have integrated this knowledge into their research to properly inform practice.

The impact of culture on cancer outcomes is cumulative, occurring at every stage of the cancer continuum from prevention, screening, and early detection to access and response to treatment, enrollment in clinical trials, rehabilitation and survivorship/palliative care, and end-of-life care. The literature is most extensive on prevention, early detection, and screening, but epidemiologic data show that disparities exist at each stage, and clinicians could reduce disparities at every stage of the continuum. As previously said, the exact contribution of culture to disparities in cancer care and outcomes has not yet been empirically identified, and the effects of culturally sensitive oncology practice have not been tested. Research findings, however, are presented here to synthesize the findings within a theoretical framework.
and offer recommendations on the basis of experience to fill the void until empirical data become available.

**Prevention**

Lifestyle appears to cause up to 80% of cancers.\(^{34,64}\) According to the 1996 Harvard report on Cancer Prevention, tobacco use and diet/obesity alone accounted for 60% of cancer deaths in the United States.\(^{34,65}\) Both of these risk factors are modifiable. Behavior changes, however, require culturally appropriate programs designed in partnership with the communities of focus. In this way, the interventions are feasible within the social and cultural determinants of their life styles. By contrast, national data report findings according to the aggregated OMB Directive 15 racial/ethnic categories, which are of limited use for clinicians who are evaluating and treating individual patients. For this reason, we offer clinical illustrations based on specific examples of ethnicity and culture in the following sections.

**Smoking**

More than 30% of cancer deaths are attributed to smoking.\(^{34}\) Public and medical health efforts to reduce rates of smoking have had a dramatic positive effect on disease incidence, morbidity, and mortality. Overall, just below 20% of Americans smoke.\(^{66}\) Smoking prevalence, however, differs considerably by racial/ethnic group, gender, age, education, and geography.\(^{67}\) In Appalachia, approximately 30% of low-income, rural non-Hispanic white adults are smokers.\(^{68}\) American Indians have the highest prevalence of smoking among all racial and ethnic groups, but significant geographic variation exists. The highest prevalence is in Alaska (45.1%) and the Northern Plains (44.2%), and the lowest is in the Southwest (17.0%). National data for Asian American men indicate smoking prevalence of 12.3% to 19% for several ethnic communities (Filipino, Chinese, Japanese, Korean, South Asian, and Vietnamese).\(^{69}\) However, when compared with data collected in native languages and in large ethnic-specific communities, the smoking prevalence, for example, for Cambodian, Lao, and Vietnamese men, was more than 65%.\(^{70}\) The smoking prevalence for Asian American women follows a similar pattern. National data portray a rate of less than 13% for each ethnic community, but local data show the smoking prevalence for Cambodian women to vary nearly twofold (from approximately 13% nationally to 22% locally), and the rate for Vietnamese women dramatically jumps from 0% nationally to 9% locally and is rising. Tobacco-use prevalence for selected Pacific Islander populations is approximately 42% to 58% for men and between 10% to 68% (the latter in Palau) for women.\(^{70}\) A closer look at Cambodians shows that smoking and tobacco use have been reinforced by cultural practices and beliefs. For instance, Buddhist monks possess a strong influence in the community, and they have a smoking prevalence of 44%. Tobacco use has been ubiquitous among Southeast Asian men, and smoking is entwined in many social functions, such as the distribution of cigarettes as gifts at weddings and social events.\(^{71}\)

In the last 30 years, the tobacco industry has increased its focus on women in general and Asian women in particular.\(^{72,73}\) Not surprisingly, the smoking prevalence of young Asian American women is rising more rapidly than any other ethnic group.\(^{70,74}\) Many ethnic organizations had tobacco cessation programs offered in their native languages with culturally appropriate efforts to try to counter the tobacco companies’ marketing efforts, but these funds are no longer easily attainable.

The Centers for Disease Control and Health Promotion has resource lists of such groups, which clinicians could use to help develop lists of cessation resources for the groups that they most commonly see in their practices.\(^{75}\) A physician recommendation to quit smoking remains the most effective incentive for individual patients to stop smoking. This clinical practice is especially likely to reach the cultural groups with persistently high smoking prevalence when individual counseling is provided with cultural awareness and sensitivity. Oncologists should always avoid comments that may be perceived as judgmental of the patient’s culture and avoid recommendations that may sound like an attribution of individual responsibility for the patient’s illness. Rather, oncologists should demonstrate awareness that smoking also has political and social dimensions that involve environmental forces well beyond individual responsibility alone.

**Diet/Obesity**

Poor and unbalanced diets and obesity are significant contributing factors to the development of cancers of
the breast (in postmenopausal women), colon, endometrium, adenocarcinoma of the esophagus, and kidney. Evidence highly suggests that obesity also increases risk for cancers of the pancreas, gallbladder, thyroid, ovary, and cervix, and for multiple myeloma, Hodgkin lymphoma, and aggressive prostate cancer.76-77

Easy access to tasty, affordable, low nutrition, and energy-dense foods coupled with a fast-paced, but sedentary, US lifestyle have significantly contributed to the rise in obesity prevalence and to the decline in healthier eating. Two-thirds of all Americans are overweight (body mass index [BMI], 25 to 30) or obese (BMI, greater than 30). More than 35.7% of African Americans, 28.7% of Hispanics, and 23.7% of non-Hispanic whites are obese.78 The obesity rates for American Indians, Pacific Islanders in Utah, and in the Pacific Islands are 33.2%, 49%, and 75%, respectively.79 The obesity rate in Asian Americans is 8.9%, but this likely represents an under-reporting phenomenon—Asian Americans are predisposed to type 2 diabetes and associated metabolic risk factors at BMIs of 22 and 23 compared with 25 for other population groups because of central distribution of body fat in this population group.79,80 Conversely, the reported rate for African Americans may be slightly high.81

Within the United States, the elements of healthier diets are known, yet the translation to practice has had limited effect, especially in underserved minorities.82,83 Like smoking, in part, this is due to the power of the social determinants of poor nutrition and obesity that portend poorer health for all people with lower education, lower levels of adequate insurance, and poorer choices in diet than NHWs, because of the high cost of healthier food choices. For low-income communities of color, for example, the major factors impacting their choices are less individual than structural, and the lack of availability and affordability of healthier food choices in inner city communities, coupled with lower health literacy, contribute to unhealthier diets and obesity.84 Members of minorities experience lower degrees of physical activity compared with what they practiced in their countries of origin where their lives tended to be less sedentary. They also have less access to areas for safe physical activity. Barriers to participation in supervised activities in rural areas due to cost also contribute to greater obesity in low-income groups of color.85-87 Groups of color and the medically underserved have lower rates of physical activity and higher rates of obesity compared with NHWs, 2 factors that contribute to more than 30% of cancers.

As an example, prompted by data in Wisconsin that showed an obesity rate of 65% among Hmong youth,87 we conducted a study of Hmong youth and parents in California. Despite their low education level and low English literacy, our interviews revealed that parents well understood what constituted a healthy diet and could prepare such meals for their families from traditional Hmong foods. They also understood that inactivity was contributing to their rising rates of overweight and obesity, and that obesity was not healthy. Their ability to follow a traditional diet and physical activity, however, was stymied by economic constraints in the United States. Therefore, in this instance, it was not culture but social determinants of living in poverty in the United States that promoted obesity. The adults described long work hours, low pay, and difficulty in finding traditional foods at affordable prices. The Hmong respondents in the study noted that they only saw fast foods advertised on television. Not understanding English, but wanting to become better Americans, they felt that their children should eat foods they viewed as symbolic of being American. Also, they did not want their children to feel “different” in school and felt that their children would be more a part of this country if they ate American food.49 Notably, they said they would be eager to obtain information on good nutrition; however, no information was available in their language. Moreover, they indicated that they would be more likely to adopt healthier eating practices if the information supported positive Hmong cultural practices that would both enhance their cultural heritage and promote healthier diets.

Improved diets could occur with better communication and relevant motivational messages in the proper language and with content that demonstrates the nutritional value and cultural significance of ethnic/cultural dishes. Some ethnic-specific intervention programs to promote healthier eating through more ethnically consonant diets and familiar and meaningful activities appear to have been successful.86 Body and Soul, a collaborative project between two national organizations—the National Cancer Institute and the American Cancer Society, is an example of a culturally tailored program to promote fruit and veg-
etable consumption among African American church members. The intervention included essential elements from previous efficacy studies, such as church-wide events, pastor support, policy change, self-help print and video materials using images and messages that are culturally relevant and in the language of the intended audience, and motivational interviews conducted by trained volunteer advisors. At a 6-month follow up, intervention participants showed a significant ($P < .05$) net increase in fruit and vegetable intake relative to controls as well as a significant decrease in fat intake, greater intrinsic motivation to eat fruit and vegetables, and greater social support and self-efficacy for eating these food groups.

The key strategies to increase the success of any lifestyle modification would be to elicit the individual’s own definition of the problem, ask for his or her suggested solutions, and develop ways to eliminate the barriers. Usually individuals know how they can best integrate needed behavioral changes into their lives and are more motivated to change behavior when the recommendations are culturally based and relevant. Suggestions are described in this article under the heading Implications for Practice.

Environmental hazards
Reducing exposure to occupational carcinogens is also included in prevention efforts. Approximately 20,000 cancer deaths and 40,000 new cases of cancer each year in the United States are attributable to occupational exposures. For example, certain forms of cancer in migrant farm workers, who are predominantly Latino or Hispanic, appear to be related to extensive exposure to pesticides or other environmental pollutants associated with large agribusiness farming techniques. These occupations are not cultural, but the groups who work in particular industries sometimes are of predominantly 1 ethnic group. African American males compose a large percentage of workers at curbside airline check-in counters where automobile exhaust is a daily occupational hazard. Korean Americans in the Washington, DC, area own 80% to 90% of dry cleaning establishments. One study found a subpopulation in which 29% of the pancreatic cancer incidence rate was due to exposure to chlorinated hydrocarbon solvents and related compounds, commonly found in dry cleaning chemicals. Thus, many occupational niches are dominated by 1 ethnic group, and incidence of certain occupation-related cancers may, therefore, be increased in specific populations. Occupational exposure to potential carcinogens is an important component of the social history of any cancer patient and must be sensitively explored and documented to identify exposure to carcinogens and other health hazards that may not be known to the patient, or about which the patient may be reluctant to volunteer information.

Traditional Practices
A perception often voiced by clinicians and researchers is their belief that many new immigrants are not prevention oriented and that this attitude contributes to their low participation in screening for cancers.

In our experience, most cultures are prevention oriented. Religious dietary restrictions and proscriptions are usually based in anecdotal knowledge. Eastern health practices, such as Ayurvedic and Traditional Chinese medicine, are expressly designed to maintain or restore emotional, physical, and social health, which is their holistic definition of health. Cancer patients have expressed strong desires to include healing of the spirit as part of their disease treatment. Thus, many cancer centers are opening services within their institutions that provide wellness practices, many of which originated in Eastern healing practices, such as mindfulness, yoga, tai chi, acupuncture, and massage. Recognition of the spiritual and religious dimensions of cancer care is growing in oncology practices and as part of psychosocial research.

Yet, professional medical education and training in the United States is only starting to include the spiritual dimension of cancer care and provides even less focus on alternative healing systems. Consequently, US physicians tend to underestimate the finding that all cultures have indigenous, traditional, healing systems, and their members use these practices alone or in parallel with the US biomedical system. These practices evolved as strategies to meet life’s adversities and have persisted over centuries because they have some usefulness, and complementary and alternative medical practices are also used by a large portion of the US population, the majority of whom are well-educated, middle class, and upper class individuals. The samples in most studies are non-Hispanic white Americans, with a consequent underestimation of the meaning of
such practices for minority ethnic groups of color, for whom such practices often are traditional healing rather than an alternative practice. Understanding this difference would help oncology professionals in their assessment of the use of complementary medicine by minority patients and in deciding whether to integrate such practices into the standard cancer care provided in the United States, unless a specific practice is determined to be harmful. For example, having knowledge of and respectfully eliciting information on the use of traditional Mexican and Chinese herbal mixtures is important because some contain lead or mercury, and others, such as bark teas, have high salicylate content and may negatively interact with chemotherapeutics. By contrast, when healing practices are neutral or beneficial and do not have negative interactions with cancer therapies, these nonallopathic healing practices may benefit cancer patients and their families by supporting them to draw upon their natural resources to maintain and promote health.

Disclosure by patients to their oncologists or nurses about the use of complementary or alternative therapies, however, is sometimes hindered by their fear of receiving judgmental or dismissive comments by their treating oncology teams. This negative judgment, which occurs also with non-Hispanic white patients, illustrates the importance of understanding that we always bring to the patient–doctor relationship at least 3 different cultures, the medical system’s, the oncologist’s, and the patient’s. Biomedicine, in fact, is a manifestation of the US society, and clinicians hold strongly held views and biases that derive from their medical education and training. For this reason, acquiring culturally sensitive communication skills is of benefit to all interactions between cancer patients and oncology professionals, regardless of concordance with their personal cultures.

Infections

Some minority groups have a substantially higher incidence than NHWs of infection-related cancers that seem culturally and geographically related. For example, African Americans, Asian Americans, American Indian/Alaska Natives, and Hispanics all have higher rates of stomach (associated with *Helicobacter pylori*), liver (associated with hepatitis B), and cervical (associated with human papilloma virus) cancer. Increased awareness by clinicians of these high-risk populations would promote appropriate screening, administration of indicated vaccines, treatment of established infections, and recommendations for other risk-reduction behaviors such as revision of their dietary, hygienic, and sexual practices. For example, some Asian American groups have about 3 times the rate of stomach cancer than non-Hispanic whites, primarily due to *Helicobacter pylori* infection coupled with high smoking rates. Testing and treatment would be recommended if clinically indicated.

Hepatocellular carcinoma rates are higher in Chinese, Southeast and Far East Asians, Pacific Islanders, Africans from the continent, and South Americans, when compared with all other ethnicities in the US population, primarily because of the endemic, chronic hepatitis B virus (HBV) infection among residents in these geographic areas. Most of these HBV carriers were infected via vertical transmission from carrier mothers to their newborns. In the United States, HBV vaccine is recommended for all newborns, and catch-up vaccination programs are available for those up to age 18 years. Immigrant adults from countries where HBV is endemic, however, have difficulty accessing screening and vaccination services because of cost and low levels of awareness, but many efforts by the US Centers for Disease Control and the Asian American community, in particular, are advocating for screening programs, so that chronic carriers can be appropriately treated to significantly reduce their viral load and control the progression of cirrhosis and hepatocellular carcinoma. Physicians also should be educated to screen individuals from endemic areas before liver function is compromised.

The human papilloma virus (HPV) vaccine is administered to prevent cervical cancer. Although evidence indicates a high degree of effectiveness in preventing the HPV infection and high-grade, cervical, intraepithelial neoplasia (CIN), the populations with the highest rates of cervical cancer can least afford (financially) the vaccine. In addition, the cultural issues surrounding gynecologic examinations in women, and especially young adolescent girls, and screening for a likely sexually transmitted disease is controversial in many traditional cultural groups. These same groups have very low cervical cancer screening rates due also to issues of modesty, especially in the presence of male clinicians.
Protective cultural practices
Research is usually directed to investigate populations who have higher cancer rates than non-Hispanic whites, but a complementary approach could help to identify protective practices, such as studying populations with lower levels of cancer rates to determine which factors may contribute to this effect. These cancer-inhibiting behaviors could also be tested across ethnic groups and when found to be effective, promoted for healthier lifestyles. For example, the diets and lifestyles of Seventh Day Adventists and Latter Day Saints are likely responsible for their lower levels of chronic illnesses relative to the overall US population. More recently, cruciform vegetables have been found to protect against development of lung and, possibly, gastrointestinal cancers. The traditional Chinese diet consists of a large proportion of vegetables, particularly cruciform vegetables. Green tea, in particular, has also been found to inhibit the development of cancer. The Mediterranean Diet, especially in Greece, involves high intake of fruits, vegetables, and nuts, as well as a dietary pattern that uses olive oil rather than saturated oils or fats, more cheese and less milk, more fish and less meat, and sourdough breads (rather than pasta) that are rich in antioxidants and micronutrients such as vitamins E and C. A more focused investigation of the dietary and lifestyle patterns of new immigrant groups in the United States or ethnic minority populations may accelerate evidence-based recommendations for preventive lifestyle changes. For example, we lack sufficient studies investigating why Hispanic women have lower rates of breast cancer than NHW or African American women, and why breast cancer rates are rising so significantly among Asian American women.

Screening and Early Detection
The California Health Interview Survey (CHIS) is the largest state-level health survey in the nation. As noted, California is one of the most ethnically diverse states in the country, and the sample in this biannual survey is unique, not only because of the oversampling performed to enable better analyses of Asian Americans and American Indian/Alaska Natives, but also because it was administered in 6 different languages (4 Asian languages, Spanish, and English). The in-depth 2001 survey report by Babey and colleagues (published in 2003) found that Asians, Latinos, and Native Hawaiians and Pacific Islanders consistently reported lower screening rates. Notably, cancer disparities were found across income groups, and public insurance did not eliminate racial or ethnic differences for cervical, breast, colorectal, and prostate cancers by race and ethnicity, income, insurance coverage, usual source of care, or English proficiency.

Reasons for the lower screening rates in communities of color are complex and both structural and cultural. Such issues as the meaning of cancer, the invasiveness of the screening test itself, and the significance and different meanings of the particular body part targeted for screening vary among different cultures and may account for lower screening rates. A study of the cancer experience of Asian American women indicates that later-stage cancer diagnosis is often due to cultural barriers, such as the belief that male physicians should not examine female body parts that are limited to husbands. As well, this population’s members may de-emphasize and sacrifice their own needs for those of their family and will not burden the family, immediate or extended, with their needs. In our experience, women will receive screenings when they know why the screening is necessary and that it will be done in a respectful and professional manner. Some, but not all, studies have found that Vietnamese women were more likely to be screened for cervical cancer when they saw non-Vietnamese physicians, but higher level of education, having a female doctor, and having a doctor perceived as respectful were associated with a greater likelihood of screening.

Unaddressed cultural beliefs, compounded by structural barriers in the US healthcare system, including the insurance morass, lack of clinic hours congruent with the work day, and the appointment-making process (eg, in Taiwan, appointments are not necessary to see a doctor) all converge to discourage individuals with other life challenges to make the extra effort to use screening and early detection services. Other, more culturally and educationally based barriers, including various degrees of patients’ and families’ medical knowledge and familiarity with the US healthcare system, may also impede the use of screening services. In addition, the lack of trained medical interpreters for non-English- or limited-
English-speaking patients and families is a significant barrier to preventive care. A trained medical interpreter is required to act as a cultural mediator and is an integral part of the team. However, because of a lack of recognition of their economic, clinical, and emotional value, trained medical interpreters are often not available, and a family member must act as the translator. Translation by friends and family may not be accurate, as many relatives tend to leave out relevant information that they consider too painful for the patient to bear or when the family member does not have the requisite experience, knowledge, or vocabulary to interpret the medical information accurately. We have observed young children placed in the very difficult position of translating a message that the mother has cancer. In this, and in all cases of patient-doctor relationships mediated by a translator, it is necessary to assure that the sex and age of the interpreter is appropriate and to elicit direct patient feedback about his or her understanding of what has been interpreted.

Studies show that community outreach and education efforts to promote breast and cervical cancer screening have been very successful in motivating and enabling ethnic minority women to overcome barriers to obtaining these services. These programs have all involved the women themselves in designing effective interventions. A physician recommendation remains the most effective motivator for participating in screening, but women have to first gain access to a physician. Patient navigators and health-outreach workers also have successfully motivated women from the most hard-to-reach populations by connecting the disconnected parts of our healthcare system.

**Treatment**

Administration of quality care requires the consent and cooperation of the patient and the resources to provide such care. The depth and quality of the patient-doctor relationship, however, may be compromised when the patient and physician lack a common cultural frame of reference. Language barriers inevitably compound the lack of connection because patient-doctor communication rarely focuses only on the patient’s illness. The relationship is built upon the ability of cancer care practitioners to show interest in and knowledge of the individual as a whole person, ie, finding out what is important in his or her life. When a common cultural terrain is not present, communication is too often limited to medical aspects, and the lack of reciprocal knowledge of each other’s culture may hinder the sense of acceptance that the patient often feels when doctors share common experiences outside diagnostic and clinical requirements. Patients’ previous experiences of biased care, or discrimination by others in the healthcare system, or in society in general, may also engender wariness toward individual oncology professionals and institutions. Unless clinicians are skilled in overcoming the patient’s caution, poor communication will likely lead to patient dissatisfaction and poor adherence to medications or treatment regimens, all of which undermine quality of care.

The IOM report on the Unequal Burden of Cancer and the 2002 report on Unequal Care definitively document the inequity in delivery of care for patients in all groups of color. Thus, it is essential to understand that, although “equal treatment produces equal outcomes,” both the quality and equity of care can remain compromised for racial/ethnic groups of color, even when standard socioeconomic indicators are statistically controlled.

In addition, because cancer patients are increasingly being treated on an outpatient basis, they receive most of their post-treatment supportive care at home. Although they may experience parity in hospital treatment, groups of color are less likely to have access to adequate home assistance and supportive care resources. Consequently, they may be exposed to more treatment complications, while also being less adherent to prescribed regimens. Moreover, individuals of color are over-represented in medically underserved areas, where they may encounter difficulty finding prescription drugs and supportive measures to control frequent side effects such as pain, emesis, mucositis, or other toxicities of cancer treatments.

Many underprivileged and/or underinsured cancer patients, because of the interaction of cultural and socioeconomic factors, also must continue to work or provide care to others despite their own needs and desire for others to take care of them between hospital visits or treatments. Finally, although psychosocial and other supportive care are integral parts of cancer care at all stages of the disease, such services are unequally offered and distributed. Because of all the above factors, comprehensive cancer care is not
applied as equally to cultural minorities as it is to members of the dominant culture, which results in a higher likelihood of unequal outcome even in the presence of equal cancer treatment.

Purported patient preferences also may account for differences in outcomes due to differential adherence by ethnic/racial group to recommended treatment regimens. These studies, however, were usually retrospective chart reviews that evaluated health service factors, such as variations in healthcare systems, socioeconomic differences, and whether or not patients were offered adequate treatment options. Whereas cultural differences, at both the institutional and interpersonal level, contribute to variations in treatment adherence, patients were not directly interviewed, and their actual perspectives were not heard. Other studies indicate that minority and low-income patients do not always receive adequate information about treatment options, and levels of health literacy are not accounted for when information is provided. Thus, “patient preference”, although indicated in health disparities, requires further confirmation.

Cultural differences also affect communication expectations on the part of both the patient and the clinician, but the impact of the cross-cultural competence of the physician on patients’ decisions and on the patient’s quality of life remains understudied. One mixed-method study found that Chinese American and Japanese American women did not ask questions to clarify the information provided because they did not want to burden their doctors or make them lose face by asking questions that would indicate that the doctors provided information that was unclear or insufficient. Chinese American and Japanese American women with early stage breast cancer also tended to choose mastectomies over breast conserving therapy, so that they would not burden their families with transportation or caregiving if their energy levels were compromised from adjuvant chemotherapy or radiation.

Results from a population-based study showed similar findings: a higher proportion of Asian American women chose mastectomy over breast conserving therapy (58% vs 42%) compared with NHW women, with especially pronounced differences among Chinese American and Filipino American women. Moreover, Chinese American women declined adjuvant therapy at a higher rate than did white women and other Asian American groups. These differences could not be explained entirely by demographic, medical, or socioeconomic characteristics, and it was postulated that a determinant role was played by culture, but no measures were taken to answer this question.

Breast cancer treatment decisions were also found to differ among low-income African American women and Latinas. African American women were more likely to make decisions on their own, whereas the families of Latinas were more involved in the final decision. To what degree these treatment decisions affect outcomes, however, is not known. The mortality rates of African American women and Latinas are higher than NHW women, but much of this variance is due to later stage at presentation. As noted earlier, some of the variation may be due to the finding that African Americans and Hispanics/Latinos may not be making fully informed decisions, because they receive less information on treatment options or the extent of treatment regimens, relative to their non-Hispanic white counterparts. Lack of adequate information may, obviously, lead to suboptimal treatment choices.

For example, in a study of breast cancer treatment decisions, more Asians versus non-Hispanic whites declined adjuvant chemotherapy. Likewise, the frequency of radiation therapy after breast-conserving surgery has also been reported to be lower in minority women, despite the standards of care for breast-conserving therapy. Radiation therapy is time-consuming, and it often entails traveling a distance from the patient’s residence. When coupled with a high cost or lack of transportation or parking, the time expenditure may be prohibitive for underprivileged women with many caregiving and/or employment obligations.

Studies of differences among diverse populations’ modes and methods for making decisions almost invariably compare racial groups, but no definition of culture is provided nor is an explanation of how race or culture was measured. As noted earlier, single-item concepts are often used to characterize a population, such as 1 belief (eg, fatalism for African Americans) or value (eg, familism for Latinos), and are taken out of context. Thus, the many other interrelated cultural factors tend to be underestimated.
Clinical Trials
In a recent review, only 2.5% of cancer patients overall are enrolled in clinical trials, and the following populations are under-represented among participants in National Cancer Institute-funded clinical trials: African American men, Latinos/Hispanics, Asian and Pacific Islanders, American Indians/Alaska Natives, adolescents, the elderly (adults aged 65 years or older), individuals who reside in rural areas, and individuals of low socioeconomic status. In 65 eligible articles reviewed, 150 distinct barriers to accrual to cancer-related trials were cited, including 124 barriers specific to accrual in therapeutic trials. Lack of culturally appropriate education materials, and language barriers that hinder communication, were reported as sources of unequal enrolment, although insufficient information was provided in individual articles to draw conclusions about whether and how specific barriers vary across cultural contexts.156 From 2002 to 2005, only 14% of participants in National Cancer Institute breast cancer treatment clinical trials were minorities, and of the 14%, 7% to 8% were African American, and 2% to 4% were Hispanics. Although these rates seem comparable to minority representation in the overall patient population, other studies show minority under-representation in oncology trials.157

Prevention trial participation by minorities is not as representative as that of the general population. The Breast Cancer Prevention Trial (BCPT) and Study of Tamoxifen and Raloxifene158 trial were initially able to recruit only 3% and 6% of their subjects, respectively, from minority groups (only 98 of 1600 and 291 of 10,000 African American women, respectively, were eligible).

Accrual of minorities to clinical trials, however, was much more effective in the Minority-Based Community Clinical Oncology Program from 1995 to 2003: 51% to 67% minorities were enrolled compared with 23% in other cooperative groups and affiliates,159 suggesting that more culturally acceptable recruitment strategies were successful and should be used in future trials, as confirmed by several other studies, which demonstrated that minority cancer patients will participate in clinical trials when asked.160,161

Palliative Care and Survivorship
As of 2008, more than 12 million cancer survivors were estimated to be living with, through, or beyond cancer in the United States.162 The unequal burden of cancer borne by ethnic minorities and the medically underserved is apparent in this stage of the cancer care continuum. Research on the cross-cultural nature of survivorship in the United States has just begun, and it is mainly focused on how health behaviors and health-related quality of life vary among survivors belonging to different ethnic and cultural groups.163 Notably, in nonindustrialized countries, cultural stigma is still associated with cancer, and living long with disease is often not within their reach.20 Literature reviews show that the US notion of survivorship as measured from the cancer diagnosis is not shared worldwide, thus confounding attempts to interpret scanty international data on survivorship that could illuminate our understanding of the role of culture in survivorship in US minorities.

The first published review on cancer survivorship among ethnic groups of color found that between 1966 and 2002, only 65 articles had been published, compared with more than 50,000 studies on primarily non-Hispanic whites. Subgroup analyses by ethnic groups were not reported, and the studies primarily focused on physiologic sequelae, psychosocial needs, health services issues, and patterns and quality of care.164 From 2002 to 2008, 168,228 articles were found in a PubMed (National Library of Medicine journals database) search on survivorship and social support. Of the 655 articles coded in PubMed as focusing specifically on ethnic minority cancer survivors, 213 reported on African American survivors, 222 on Latinos/Hispanics, 80 on American Indians/Native Americans, 49 on Asian Americans, and 26 on Pacific Islanders. These studies indicate that the needs of these diverse populations are as significant as non-Hispanic white cancer survivors, but the ability of clinicians or community groups to provide adequate services is hindered by lack of sufficient information to provide culturally relevant support and education for minority cancer patients and their families.

A few studies, and primarily anecdotal information from ethnic-specific community leaders, indicate that members of these diverse ethnic groups have tried to use the services of mainstream survivorship programs but have usually found them not helpful because they did not address family and personal issues in ways that integrate cultural differences in communication styles or modes of providing social support and in-language services.165 Community organizations, some of which are
listed under national resources at the end of this article (Table 4), are providing such programs, but there are still too few to meet the growing need.

Survivors require medical and psychosocial support along with information on how to maintain physical, emotional, social, and spiritual health and how to manage long-term sequelae of treatment. Religiosity and spirituality also are salient parts of the lives of all cancer patients, and many cultural groups of color may especially benefit from an integration of spiritual counseling along the entire continuum of care. Greater attention is needed to implement a culturally-based integrated approach to meet the palliative care and survivorship needs of diverse cancer patients and their families.

End-of-Life Care

Few studies have systematically examined the cultural needs of ethnic minorities and the medically underserved in end-of-life care. Yet differences exist by cultural group, especially at the end of life. Pain is expressed physically, emotionally, and socially. For example, some minority patients are reticent to ask for help in controlling their cancer-related pain because of a cultural value of bearing suffering in silence. Others feel the need to bear pain for religious reasons, as a test of God or their faith, or fear of addiction to analgesics. Assuring a dignified death at the end of life for many minority patients seems unlikely if evidence-based treatments and interventions are not provided in a timely fashion—or at all. Overall, 70% of cancer patients in nursing homes have been reported to die in moderate to severe pain in the few days before death. Suffering unnecessary pain can also be compounded by structural problems, as noted, of availability of narcotic medications at pharmacies in lower income areas with high concentrations of populations of color.

Hospice care is recognized as providing better quality care at the end of life than standard hospital or home care. Only 17% or so of hospice patients belong to minority groups. International studies indicate a much lower use of hospice at the end-of-life in Mediterranean and Islamic countries, but relatively little is known at this time about cultural variations in attitudes toward end-of-life care within the United States. The majority of studies conducted on African Americans note less use of advanced directives and a stronger belief in vitalism compared with non-Hispanic whites. Vitalism, itself, is a complex attitude that illustrates, once again, the multifaceted nature of the notion of culture, where religious, social, and historical factors are inextricably intertwined. Vitalism, in fact, is not only rooted in African American spirituality, but it is also the result of centuries of abuses and discrimination, including within medical care, which have engendered mistrust in the dominant medical establishment and fear of being prematurely deprived of life. Findings from a study of predictors of Advance Care Planning (ACP) among African American, Hispanic, and non-Hispanic white patients showed that African Americans were less likely to consider themselves terminally ill and more likely to want intensive treatment. Yet, more information is needed to better explain why these ethnic and cultural variations exist.

A simple strategy would be to ask patients and their families, in a culturally informed manner, how they would want to hear and discuss serious medical information. In 1 small study, African American family members and non-Hispanic white family members were reported to differ in both the content and the structure of the information that they desired for end-of-life decisions made in the emergency room. Non-Hispanic white participants desired more factual information on medical options, prognosis, quality of life, and cost implications, whereas African American participants tended to value the protection of life at all costs and requested spiritually focused information on suffering and spiritual guidance to support the extended family in making decisions. Furthermore, non-Hispanic white participants tended to exclude family participants in end-of-life discussions whereas African American participants preferred to include more family, friends, and spiritual leaders.

The differences in end-of-life decision-making preferences and practices noted above suggest that clinical care and hospital or agency policy should integrate the variation of values and preferences found among minority patients and families at the end of life. However, as our discussion at each stage of the continuum indicates, the impact of culture on the quality of cancer care is a complex combination of both cultural and systemic issues that are related, ultimately, to social stratification in our society. For example, lack of trust, especially when making end-of-life care decisions, has a profound impact on whether or not the patient and
family will have a sense of security that oncologists are making decisions based upon their patients’ best interests.

Part of this is structural. For example, minority and underserved populations in the United States are more likely to use emergency rooms, other acute care centers, or teaching hospitals when they do not have access to a regular source of care and, consequently, they have less opportunity to build a trusting relationship with oncology professionals, but it is also cultural influences that generate different views of what a “life worth living” means.

Caregivers

Cancer is a family affair. When 1 member has the disease, the internal roles and dynamics of family relationships are subverted, and social interactions within the family need to adjust to the new reality of this disease. Yet, most research on coping with cancer, physician communication, and treatment decisions continues to focus on the individual in the doctor/patient dyad. In most cultures and in communities of color, however, the smallest unit of analysis for well-being is the family, not the individual. For palliative care, especially, more focus needs to be trained on the triad of doctor, patient, and family.

The meaning and values associated with caregiving and the who, how, and what of care provision appear to differ by ethnic group. In a study of Mexican caregivers, profound differences in perspectives of caregiving emerged. Caring for a loved one was seen as an opportunity to return the gift of caring and, thus, was also seen as a privilege, not a burden or sacrifice, to share time with a loved one. Such perceptual differences affect the quality of life of all involved in the provision of care. In the caregiving literature, the construct of culture is usually not addressed. However, as in each of the preceding areas, relationships within families and concepts of care are expressed differently in different cultures.

Implications and Recommendations for Practice

Cross-cultural communication skills are key to developing trust and rapport with patients and their families at each stage along the cancer continuum. Physicians’ personal assumptions and biases on race and their individual values concerning autonomy, gender, age, and class affect the quality of communication with their patients. The values each of us holds on each of these variables have been informed by our personal cultural background as well as our professional training, and we must first acknowledge we have them, for culture affects cancer care most clearly at the intersection of the patient and physician.

Cultural dissonance in communication etiquette or in the manner in which information is provided, both verbally and nonverbally, may engender different degrees of patient and family mistrust. The clinician’s good intentions may be misunderstood by the patient, because of different role expectations and the anxiety that surrounds a cancer diagnosis, which represents a threat not only to the patient’s life but also to the integrity of that person’s social network. The anxiety and fear evoked by the cancer diagnosis is omnipresent, but understanding the cultural meaning of cancer, suffering, death, and the patient and family’s prior life experience is essential. For example, gender, age, and role expectations play a large part in “respectful” communication in most cultures. The content of the patient–doctor communication may be the same, but how it is communicated may change its meaning and how the message is perceived. For example, 1 study found that all groups of color, and Asian Americans most strikingly, were more likely to perceive bias and lack of cultural competence when seeking treatment in the healthcare system than NHWs, and these perceptions persisted, even when controlling for demographic factors, health literacy, and self-rated health status.

Figure 4 shows that both the patient and the practitioner are embedded within their own cultures as well as, for the clinician, in the culture of biomedicine. The goal of communication is for the clinician to be able to negotiate with the patient mutually satisfactory goals for health and treatment of disease (Fig. 4, Box 4). The most productive mode of communication is to recognize the cultural background both of the clinician (who has distinct personal as well as professional culture), and the patient and family. Ideal communication (Fig. 4, Box 4) enables the actors to negotiate mutually desired objectives through culturally competent, patient-centered, individualized care. This requires that medical practitioners have the cross-cultural skills to enable them to elicit from the patient and family the information
needed to make an accurate medical, social, cultural, and emotional assessment. The other 3 alternatives for communication strategies produce poorer outcomes.

Based upon culturally competent communication skills, we then have 5 recommendations for clinicians to use in their practice to address cultural variations. Application of these strategies will likely improve cancer outcomes for diverse populations (Table 2).

The following 5 strategies emphasize a systems approach to the contextual nature of culture and cancer along the cancer continuum.

**Step 1:** Structure the information elicited for the patient’s social history using the 7 cultural components of culture and the elements of the Ecologic Model. Integration of the 7 layers of information (Table 3) would provide the oncologist with a more accurate understanding of the influence of the sociohistorical cultural context on the patient’s and family’s worldview of cancer and its implications for their lives. From this basis, the oncologist would be better able to negotiate a mutually developed treatment plan that could be applied at all points along the entire cancer care continuum.

**Step 2:** Integrate cultural knowledge into communication styles for culturally based and patient-centered care.

Patient-centered practice is the goal, but comprehensive knowledge of a patient requires understanding his or her culture as well. Ethnic group differences do make a difference. Rather than racial/ethnic group labels, a comprehensive social history, taken with sensitivity and tact, could provide the information needed for the clinician to understand the extent to which a particular individual does or does not fit the cultural assumptions made about particular ethnic groups. Thus, racial/ethnic group membership(s) should be self-identified and then augmented with the appropriate individual sociocultural history.

Communication that demonstrates culturally consonant credibility, trustworthiness, and caring for each other’s values, beliefs, and practices also helps to build mutual respect necessary to establish an effective therapeutic relationship. To be mutually satisfactory, the process of communication must be comprehensible, relevant, realistic, desirable, and effective. This strategy of culturally sensitive communication does not eliminate conflicts but does provide a means to avoid them and resolve them should they occur.

Using this approach, clinicians would also be better able to gauge the ability and readiness of the patient and family to comprehend the information, and then, clinicians could present it in a respectful manner to the individual(s) designated as the appropriate receiver(s) of this information.

How information is communicated to and understood by particular patients and families depends upon their culture, age, sex, gender roles, education,
and degree of adherence to traditional social structures. One of the first steps in learning the skill of cultural competency is awareness of one’s own biases and awareness of those attitudes or behaviors that may elicit strong negative reactions in ourselves when confronted with cancer patients who do not share our cultural background. For example, oncologists born and trained in western countries may be opposed to husbands or family members who speak in lieu of patients, yet they must be prepared to face clinical situations where the cancer patient may remain silent while others answer personal questions on his or her behalf. Also, almost 90% of communication is accomplished nonverbally, through gestures, expressions, and tone of voice. Patients are highly attuned to the nonverbal communication of clinicians. Part of cultural competence in clinics is to learn how to synchronize verbal messages with the nonverbal ones—especially cross culturally. Cultural competence training is now mandatory in the United States for medical students and other healthcare workers. Numerous continuing medical education and online courses are available to further clarify the elements covered in this article.

**Step 3:** Assess your own practice and hospital structures that support or hinder culturally competent practice.

Organizations must support a culturally competent practice environment. The Office of Minority Health issued the federal standards for Culturally and Linguistically Appropriate Services in Healthcare (CLAS), and the Joint Commission (formerly known as the Joint Commission on Accreditation of Healthcare Organizations) has adopted these for accreditation. Implementation of these standards is relatively new, and it is left to individual institutions to define how to measure cultural competency. The CLAS standards address both the cultural competence of practitioners as well as hospitals and other healthcare agencies.

**Step 4:** Integrate the recommendations of the Institute of Medicine Report entitled, Toward Health Equity and Patient Centeredness: Integrating Health Literacy, Disparities Reductions and Quality Improvement. This IOM report integrates 3 new areas of research, each aimed to eliminate health disparities. The focus of the report is on point of entry into healthcare, but these topics apply along each stage of the cancer care continuum.

**Step 5:** Integrate community resources for support of cancer patients and their families. Development of community engagement in health disparities through outreach, education, and research is crucial. Step 5 articulates the need for collaboration between the community and the clinical world to provide ethnic-specific support for cancer patients and their families. Several successful ethnic-specific national programs are available for community cancer care. Some of the agencies providing cancer education and direct services as well as referral services for patients and their families are listed in Table 4.

These ethnic-specific national organizations, and numerous local organizations, educate their communities on living through and beyond cancer and on dispelling the stigma of this disease that is so profound in these communities. These groups are highly successful, thanks to the dedication and work of many community volunteers, but few are able to serve their communities nationally due to limited resources. The American Cancer Society (ACS) information line (1-800-ACS-2345) is an important re-

| **TABLE 2. Five Recommendations for Integrating Cultural Knowledge into Clinical Practice** |
|---|
| **RECOMMENDATIONS** |
| **1** Structure the information elicited for the Social History using the 7 cultural components of culture and the elements of the Ecologic Model. |
| Be attuned to cultural and individual variations |
| Apply the information to provide patient- and family-centered care |
| **2** Integrate culturally based knowledge and communication styles for culturally based patient-centered care |
| Know your own personal biases |
| Use culturally appropriate nonverbal communication etiquette |
| Include the use of trained medical interpreters |
| **3** Assess your own practice and hospital structures that support or hinder culturally competent practice |
| **4** Integrate the recommendations of the Institute of Medicine Report Toward Health Equity and Patient Centeredness: Integrating Health Literacy, Disparities Reductions and Quality Improvement |
| **5** Integrate community resources for support of cancer patients and their families |
| Ethnic-specific services |
| Culturally competent agencies, such as local American Cancer Society units |
| Community organizations that provide bilingual and bicultural navigation/promotions/community health outreach services |
source for clinicians, patients, and families to find local resources. Local ACS units are creatively developing partnerships and programs to address the underserved to bring parity to cancer outcomes.

The work needed in ethnic minority and underserved communities to dispel the belief that cancer is always a death sentence is daunting. Because of disparities that exist in these communities, too often this belief is well

---

### TABLE 3. Seven Levels of Assessment for Culture

| LEVELS OF CULTURAL ASSESSMENT | INFORMATION NEEDED TO ASSESS EACH LEVEL | TYPES OF QUESTIONS |
|------------------------------|----------------------------------------|-------------------|
| 1 Environment                | Place of residence; characteristics of neighborhood and community, ie, knowledge of the historical and political context of the community | What kind of assistance is available to you in your community that might be helpful during this time? Do you know others in your community who have faced similar difficulties? |
| 2 Economy                    | Income, wealth, and types of jobs       | What kind of work do you do? What kind of work did you or your family do before immigrating to the United States? |
| 3 Technology                 | Degree of technology involved in type of employment and job qualities, eg, safety, exercise, environmental exposure | What kind of work safety issues are you concerned with? What kind of work or safety issues is your employer concerned with? |
| 4 Religion/World View and beliefs about healing systems | What is the patient/family’s religious affiliation and degree of spirituality and religious community involvement? What are the patient’s beliefs about Western biomedicine and cultural healing systems? | Where do you go for religious or spiritual strength or solace? Do you use the services or advice of your traditional healers? Which healers do you see? What natural herbs/tonics/medicines are you using to help you with your present illness? |
| 5 Language and Health Literacy | What language(s) does the patient speak? What is the patient’s level of fluency in English and literacy in health matters and materials? | What languages do you speak, and in which are you most comfortable speaking? Would a trained medical interpreter help you to communicate with me and ask the questions you would like to ask me? Do you know how to obtain the services of a trained medical interpreter? |
| 6 Social Structure           | Who is in the patient’s social network? What is each person’s position in the social network? What are the communication and decision-making patterns of the group? Do gender, age, and other attributes affect status in this social circle? | Who are the people in your support system who are helpful or harmful? Who is there to help you with physician care, emotional support, transportation, and care of loved ones? Who do you do you see or talk with for support? |
| 7 Beliefs and Values          | What particular constellation of cultural beliefs and values may impact behavior change envisioned wherever the patient/family is on the cancer care continuum? | How do you see this disease affecting you and your family? If patients know their diagnosis, then ask, “What most concerns you about your condition?” What does cancer mean to you? |

---

### TABLE 4. Ethnic-Specific Cancer Support Resources

| SUPPORT RESOURCES |
|-------------------|
| The American Cancer Society information line (1-800-ACS-2345) |
| Breast Cancer Resource Committee (BCRC) and Rise, Sister, Rise providing information and support for African American breast cancer survivors |
| Witness Project, a national breast cancer education and screening intervention program for African American women |
| Redes en Acción (http://www.redesenaccion.org/) of the National Latino Cancer Research Network, a network of community-based organizations, research institutions, government health agencies, and public members that focus on combating cancer in the Latino community |
| The Native American Cancer Education for Survivors (NACES) (http://natamcancer.org/naces.html) provides online resources for cancers survivors, their caregivers, and educators for the reduction of cancer incidence and mortality |
| Native WEB and Native CIRCLE (http://mayoresearch mayo.edu/mayo/research/cancercenter/), outreach training for nurses and culturally appropriate cancer education materials for American Indians and Alaska Natives, respectively |
| National Asian American and Pacific Islander (AAPI) Cancer Survivors Network (http://www.aapcho.org/site/aapcho/section.php?id=10936), a network devoted to reducing the burden of cancer and improving the quality of life for diverse AAPI patients and survivors |
| The Asian American Network for Cancer Awareness, Research and Training (http://AANCART.org), a national network of sites serving the diverse Asian American population |
grounded in the reality of their lives. Partnerships with these agencies and the many federally and other non-profit programs affiliated with academic centers are excellent resources as well. Working in concert with communities to provide respectful and responsive services that are congruent with their cancer patients’ world views, beliefs, values, and practices will enable the patient and family to maintain dignity and integrity and will foster their ability to make the decisions that will maintain their desired quality of life within the realities of their disease.213

**Conclusion**

Despite more than 40 years of studies and engagement to eliminate widespread health disparities in the United States, the length and quality-of-life of ethnic minority and medically under-served cancer patients and survivors has not yet improved substantially relative to NHWs. The path of cancer care we have been traveling requires that we rechart our course, for we know what is wrong, but we are unclear why. In this article, we have presented an alternative path to promote equity in cancer outcomes for members of minority ethnic populations through culturally competent oncology practices. This path requires culturally based education, training, and restructuring of the healthcare system.

By defining culture to more accurately encompass its holistic and contextual nature, oncologists would be better able to establish meaningful and trustworthy therapeutic relationships with their patients of diverse cultural backgrounds. Through culturally sensitive communication and constant collaboration with patients, their families, and community representatives, oncology professionals could effectively contribute to reducing cancer care disparities on a daily basis.

One study compared the emotional responses of Japanese Americans and European Americans to cancer and found that their responses were equally adaptive, but each was focused on different goals and used different coping strategies from one another.214 For Japanese Americans, their idiom of strength was of endurance, ie, to bear distress stoically and self-sufficiently, and their metaphor was bamboo, ie, strong, but pliant, and in a group. In contrast, the European American idiom was fighting an external enemy, and their metaphor was an oak tree, resistant and singular. Notable gender differences also modified their responses. Japanese American men and the European American women were more easily able to draw on their social support networks and more readily accepted the dependent role imposed by cancer treatment side-effects than Japanese American women and European American men, who experienced more distress with dependency.

Thus, the label of adaptive or maladaptive response should be used cautiously until deeper cultural understanding is established and comparative tests of identified coping styles conducted. Policy changes in healthcare should also be designed and implemented with proper funding to enable clinicians to provide equitable quality care. From now on, we can adopt clinical practice styles that use the broader definition of culture outlined in this article. The growing diversity of our society requires cross-culturally inclusive care to eliminate the burden of health disparities. ■

**REFERENCES**

1. Smith BD, Smith GL, Hurria A, Hortobagyi GN, Buchholz TA. Future of cancer incidence in the United States: burdens upon an aging, changing nation. *J Clin Oncol.* 2009;27:2758-2765.

2. Goss E, Lopez AM, Brown CL, et al. American Society of Clinical Oncology policy statement: disparities in cancer care. *J Clin Oncol.* 2009;27:2881-2885.

3. Freund KM, Battaglia TA, Calhoun E, et al. National Cancer Institute Patient Navigation Research Program: methods, protocol, and measures. *Cancer.* 2008;113:3391-3399.

4. Institute of Medicine. Scientific Opportunities and Public Needs: Improving Priority Setting and Public Input at the National Institutes of Health. Washington, DC: National Academy Press; 1998.

5. Institute of Medicine. The Unequal Burden of Cancer. Washington DC: National Academy Press; 1999.

6. Institute of Medicine. Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, DC: National Academy Press; 2001.

7. Institute of Medicine. Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare. Available at: http://www.iom.edu/en/Reports/2003/IUnequal-Treatment-Confronting-Racial-and-Ethnic-Disparities-in-Health-Care.aspx. Accessed July 22, 2007.

8. Institute of Medicine. Board on Neuroscience and Behavioral Health. Health Literacy: A Prescription to End Confusion. Washington, DC: National Academies Press; 2004.

9. Collins KS, Hughes DL, Doty MM, et al. Diverse Communities, Common Concerns: Assessing Healthcare Quality for Minority Americans. New York: The Commonwealth Fund; March 1, 2002.

10. US Bureau of Census. Texas Becomes Nation’s Newest “Majority-Minority” State. Washington, DC: US Census Bureau; 2005.

11. Babey SH, Ponce NA, Etzioni DA, et al. Cancer screening in California: racial and ethnic disparities persist. *Policy Brief UCLA Cent Health Policy Res.* 2003(PB2003-4):1-6.
tial of Cancer Prevention and Early Detection. Washington, DC: National Academies Press; 2003.

65. American Cancer Society. Modifiable risk factors still major cause of cancer deaths worldwide. CA Cancer J Clin. 2006;56:63-64.

66. Centers for Disease Control. Tobacco smoking among adults—United States, 2007. MMWR Morb Mortal Wkly Rep. 2008;57:1211-1216. Erratum: MMWR Morb Mortal Wkly Rep. 2008;57:1281.

67. Centers for Disease Control. Prevalence of cigarette smoking among adults—United States, 1999-2001. MMWR Morb Mortal Wkly Rep. 2004;53:49-52.

68. Ahijevych K, Kuen P, Christman S, Wood T, Browning K, Wewers ME. Beliefs about tobacco among Appalachian current and former smokers. App Indus Res. 2003;16:93-102.

69. American Cancer Society. Cancer Prevention & Early Detection Facts & Figures 2009. Atlanta, GA: American Cancer Society; 2009.

70. Lew K, Tanjasiri SP. Smoking among adults—United States, 2007. MMWR Morb Mortal Wkly Rep. 2008;57:1211-1216. Erratum: MMWR Morb Mortal Wkly Rep. 2008;57:1281.

71. Friis RH, Forouzesh M, Chhim HS, Monga S, Sze D. Sociocultural determinants of tobacco use among Cambodian Americans. Health Educ Res. 2006;21:355-365.

72. Carpenter CM, Wayne GF, Connolly GN. Designing cigarettes for women: new findings from the tobacco industry documents. Addiction. 2005;100:837-851.

73. Lee K, Carpenter C, Challa C, Lee S, Connolly GN, Koh HK. The strategic targeting of females by transnational tobacco companies in South Korea following trade liberalisation. Global Health. 2009;5:2.

74. Berkowitz E. Essentials of Healthcare Marketing. Jones & Bartlett; 2006.

75. Centers for Disease Control. Best Practices for Comprehensive Tobacco Control Programs—2007. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2007.

76. Reidpath DD, Burns C, Garrard J, Mahonne A, Peterson M. An ecological study of the relationship between social and environmental determinants of obesity. Health Place. 2002;8:141-145.

77. Kushi LH, Byers T, Doyle C, et al. American Cancer Society guidelines on nutrition and physical activity for cancer prevention: reducing the risk of cancer with healthy food choices and physical activity. CA Cancer J Clin. 2006;56:254-281; quiz 313-325.

78. Centers for Disease Control. Differences in prevalence of obesity among black, white, and Hispanic adults—United States, 2006-2008. MMWR Morb Mortal Wkly Rep. 2009;58:740-744.

79. Pleiss J, Lucas JW. Summary health statistics for U.S. adults: National Health Interview Survey, 2007. Vital Health Stat 10. 2009;240:1-159.

80. Deurenberg P, Deurenberg-Yap M, Guricci S. Asians are different from Caucasians and from each other in their body mass index/body fat percentage relationship. Obes Rev. 2002;3:141-146.

81. Sumner AE, Ricks M, Sen S, Frempong BA. How current guidelines for obesity underestimate risk in certain ethnicities and overestimate risk in others. Curr Cardiol Rep. 2007;9:197-101. Available at: http://www.current-reports.com/contents.cfm?Volume=1&Issue=2.

82. Swinburn B, Caterson I, Seidell JC, James WP. Diet, nutrition and the prevention of excess weight gain and obesity. Public Health Nutr. 2004;7:123-146.

83. Drewnowski A. Nutrition transition and global dietary trends. Nutrition. 2000;16: 486-487.

84. Adler NE, Stewart J. Reducing obesity: motivating action while not blaming the victim. Milbank Q. 2009;87:49-70.

85. Pleis J, Lucas JW. Summary health statistics, 2009. CA Cancer J Clin. 2009;59:225-249.

86. Van Duyn MA, McCratie T, Wingrove BK, et al. Adapting evidence-based strategies to increase physical activity among African Americans, Hispanics, Hmong, and Native Hawaiians: a social marketing approach [abstract]. Prev Chronic Dis. 2007;4:A102.

87. Kim LP, Harrison GG, Kagawa-Singer M. Perceptions of diet and physical activity among California adults and youths. Prev Chronic Dis. 2007;4:A102.

88. Campbell MK, Resnicow K, Carr C, Wang T, Williams A. Process evaluation of an effective church-based diet intervention: Body & Soul. Health Educ Behav. 2007;34: 864-880.

89. Environment Directorate General. REACH. 2003;18:568-575.

90. Adler NE, Stewart J. Reducing obesity: a social marketing approach [abstract]. Prev Chronic Dis. 2007;4:A102.

91. Wright WE, Bernstein L, Peters JM, Gaensler EA. Process evaluation of an intervention to improve the nutritional resource environment in community organizations. J Gen Intern Med. 2003;18:568-575.

92. Campbell MK, Resnicow K, Carr C, Wang T, Williams A. Process evaluation of an effective church-based diet intervention: Body & Soul. Health Educ Behav. 2007;34: 864-880.

93. Zahm SH, Blair A. Assessing the feasibility of epidemiologic research on migrant and seasonal farm workers: an overview. Am J Ind Med. 2001;40:487-489.

94. Murray LR. Sick and tired of being sick and tired: scientific evidence, methods, and research implications for racial and ethnic disparities in occupational health. Am J Public Health. 2003;93:221-226.

95. Lipsett M, Campleman S. Occupational exposure to diesel exhaust and lung cancer: a meta-analysis. Am J Public Health. 1999;89:1009-1017.

96. Lieser E. Korean American dry cleaners in California farm workers. Am J Ind Med. 2007;54:249-258.

97. Lieser E. Korean American dry cleaners in California farm workers. Am J Ind Med. 2007;54:249-258.

98. Brown CM, Barner JC, Richards KM, Bohman TM. Patterns of complementary and alternative medicine use in African Americans. J Altern Complement Med. 2007;13:751-758.

99. Sablow D, Castle PE, Cox JT, et al. American Cancer Society Guidelines for human papillomavirus (HPV) vaccine use to prevent cervical cancer and its precursors. CA Cancer J Clin. 2007;57:7-28.

100. Taylor VM, Nguyen TT, Jackson JC, McPhee SJ. Cervical cancer control research in Vietnamese American communities. Cancer Epidemiol Biomarkers Prev. 2008;17:2924-2930.

101. Matin M, LeBaron S. Attitudes toward cervical cancer screening among Muslim women: a pilot study. Women Health. 2004;39:63-77.

102. Nguyen TT, McPhee SJ, Nguyen T, Lam T, Mock J. Predictors of cervical PAP test screening awareness, intention, and receipt among Vietnamese-American women. Am J Prev Med. 2002;23:207-214.

103. Merrill RM, Lyon JL. Cancer incidence among Mormons and from each other in their body mass index/body fat percentage relationship. Obes Rev. 2002;3:141-146.

104. Summer AE, Ricks M, Sen S, Frempong BA. How current guidelines for obesity underestimate risk in certain ethnicities and overestimate risk in others. Curr Cardiol Rep. 2007;9:197-101. Available at: http://www.current-reports.com/contents.cfm?Volume=1&Issue=2.

105. Swinburn B, Caterson I, Seidell JC, James WP. Diet, nutrition and the prevention of excess weight gain and obesity. Public Health Nutr. 2004;7:123-146.

106. Drewnowski A. Nutrition transition and global dietary trends. Nutrition. 2000;16:486-487.

107. Adler NE, Stewart J. Reducing obesity: motivating action while not blaming the victim. Milbank Q. 2009;87:49-70.

108. Sloane DC, Diamant AL, Lewis LB, et al. Improving the nutritional resource environment for healthy living through community-based participatory research. J Gen Intern Med. 2003;18:568-575.

109. Van Duyn MA, McCratie T, Wingrove BK, et al. Adapting evidence-based strategies to increase physical activity among African Americans, Hispanics, Hmong, and Native Hawaiians: a social marketing approach [abstract]. Prev Chronic Dis. 2007;4:A102.

110. Kim LP, Harrison GG, Kagawa-Singer M. Perceptions of diet and physical activity among California adults and youths. Prev Chronic Dis. 2007;4:A102.

111. Wright WE, Bernstein L, Peters JM, Gaensler DA. Process evaluation of an effective church-based diet intervention: Body & Soul. Health Educ Behav. 2007;34:864-880.

112. Environment Directorate General. REACH. 2003;18:568-575.

113. Lieser E. Korean American dry cleaners in California farm workers. Am J Ind Med. 2007;54:249-258.

114. Lieser E. Korean American dry cleaners in California farm workers. Am J Ind Med. 2007;54:249-258.

115. Wright WE, Bernstein L, Peters JM, Gaensler DA. Process evaluation of an effective church-based diet intervention: Body & Soul. Health Educ Behav. 2007;34:864-880.

116. Lieser E. Korean American dry cleaners in California farm workers. Am J Ind Med. 2007;54:249-258.

117. Lieser E. Korean American dry cleaners in California farm workers. Am J Ind Med. 2007;54:249-258.
117. Sun CL, Yuan JM, Koh WP, Yu MC. Green tea, black tea and breast cancer risk: a meta-analysis of epidemiologic studies. *Carcinogenesis*. 2006;27:1310-1315.

118. Inoue M, Robien K, Wang R, et al. Green tea intake, MTHFR/TMSY genotype and breast cancer risk: the Singapore Chinese Health Study. *Carcinogenesis*. 2008;29:1967-1972.

119. Yuan JM, Gao YT, Yang CS, Yu MC. Urinary biomarkers of tea polyphenols and risk of colorectal cancer in the Shanghai Cohort Study. *Int J Cancer*. 2007;120:1344-1350.

120. Simopoulos A. The Mediterranean diets: What is so special about the diet of Greece? The scientific evidence. *J Nutr*. 2001;131(11 suppl):2065S-2073S.

121. Levi F, Lucchini F, Negri E, La Vecchia C. The Mediterranean diets: future research and prevention strategies. *J Nutr*. 2004;134:1344-1350.

122. Levi F, Lucchini F, Negri E, La Vecchia C. The Mediterranean diets: a population-based analysis. *Arch Surg*. 2004;139:151-155; discussion 156.

123. Gordon HS, Street RL Jr, Sharif BF, Kelly PA, Soucek J. Racial differences in trust and lung cancer patients' perceptions of physician communication. *J Clin Oncol*. 2006;24:904-909.

124. Burhansstipanov L. Community-driven barriers to cancer care through health education. *Am J Public Health*. 2005;95:1175-1181.

125. Baldwin LM, Dobie SA, Billingsley K, et al. Differences in treatment patterns for local-stage breast cancer: a population-based analysis. *Arch Surg*. 2004;139:151-155; discussion 156.

126. Huang N, Huang N, Huang N, Huang N. Understanding the breast cancer experience of Asian American women. *Psychooncology*. 2003;12:38-58.

127. Jacobs EA, Shepard DS, Suaya JA, Stone EL. Overcoming language barriers in healthcare: costs and benefits of interpreter services. *Am J Public Health*. 2004;94:866-869.

128. Flores G, Torres S, Holmes LJ, Salas-Lopez D, Youdelman MK, Tomany-Korman SC. Differences in patient perceptions of bias and use among Medicare beneficiaries. *Ann Pharmacother*. 2006;40:1111-1117.

129. Wells KJ, Battaglia TA, Dudley DJ, et al. National Cancer Institute Community Network. Available at: http://depts.washington.edu/cchp/commbas.html. Accessed January 8, 2001.

130. National Cancer Institute Community Networks. Available at: http://rchd.cancer.gov/cnp/background.html.

131. Centers for Disease Control. Racial and Ethnic Approaches to Community Health Across the US [REACH U.S. program website]. Available at: http://www.cdc.gov/reach/.

132. W.K. Kellogg Foundation. W.K. Kellogg Foundation Community Health Scholars Program. Available at: http://depts.washington.edu/cchp/commbas.html. Accessed January 8, 2001.

133. Wells KJ, Battaglia TA, Dudley DJ, et al. Patient navigation: state of the art or is it science? *Cancer*. 2008;113:1999-2010.

134. Calhoun EA, Whitney EM, Esperza A, et al. A National Patient Navigator Training Program. *Health Promot Pract*. Dec 30, 2008. [Epub ahead of print]

135. Burgess DJ, Ding Y, Hargreaves M, van Ryn M, Phelan J. Perceptions of perceived discrimination and underutilization of needed medical and mental healthcare in a multiethnic community sample. *J Healthcare Poor Underserved*. 2008;19: 894-911.

136. Dovidio JF, Penner LA, Albrecht TL, et al. Disparities and distrust: the implications of psychological processes for understanding racial disparities in health and healthcare. *Soc Sci Med*. 2008;67:478-486.

137. Brawley OW, Freeman HP. Race and outcomes: is this the end of the beginning for minority health research? *J Natl Cancer Inst*. 1999;91:1895-1900.

138. Sun CL, Yuan JM, Koh WP, Yu MC. Green tea, black tea and breast cancer risk: a population-based analysis. *Arch Surg*. 2004;139:151-155; discussion 156.

139. Clogg C, Lui CL, Chau M, Kuan H. Ethnic identity and depression in Mexican-American elderly. *Hisp J Behav Sci*. 1991;13:236-237. Available at: http://hjb.sagepub.com/content/vol13/issue2/.

140. Wells KJ, Battaglia TA, Dudley DJ, et al. Racial disparities in treatment and survival among women with early-stage breast cancer. *J Clin Oncol*. 2005;23:6639-6646.

141. Baldwin LM, Dobie SA, Billingsley K, et al. Explaining black-white differences in receipt of recommended colorectal cancer screening. *J Natl Cancer Inst* 2005;97:1211-1220.

142. Johnson RL, Saha S, Arbelaez JJ, Beach MC, Cooper LA. Racial and ethnic differences in patient perceptions of bias and cultural competence in healthcare. *J Gen Intern Med*. 2004;19:110-116.

143. Luria C, Hymes J, Klerman GL, et al. Differences in treatment patterns for local-stage breast cancer: a population-based analysis. *Arch Surg*. 2004;139:151-155; discussion 156.

144. Baldwin LM, Dobie SA, Billingsley K, et al. Explaining black-white differences in receipt of recommended colorectal cancer screening. *J Natl Cancer Inst* 2005;97:1211-1220.

145. Johnson RL, Saha S, Arbelaez JJ, Beach MC, Cooper LA. Racial and ethnic differences in patient perceptions of bias and cultural competence in healthcare. *J Gen Intern Med*. 2004;19:110-116.

146. Betancourt JR. Cultural competency: providing quality care to diverse populations. *Consult Pharm*. 2006;21:988-995.

147. Ashing-Giwa K, Kagawa-Singer M. Infusing culture into oncology research on quality of life. *Oncol Nurs Forum*. 2006;33(1 suppl):31-36.

148. Kagawa-Singer M, Welsch DK, Durvasula R. Impact of breast cancer on Asian American and Anglo American women. *Cult Med Psychiatry*. 2006;30:349-480.

149. Prehn AW, Topal B, Stewart S, et al. Differences in treatment patterns for localized breast carcinoma among Asian/Pacific islander women. *Cancer*. 2002;95:2268-2275.

150. Malc RC, Umezawa Y, Ratliff CT, Leake B. Racial/ethnic group differences in treatment decision-making and treatment received among older breast carcinoma patients. *Cancer*. 2006;106:957-965.

151. Harper S, Lynch J, Meersman SC, et al. Trends in area-socioeconomic and race-ethnic disparities in epidemiologic studies of cancer incidence, stage at diagnosis, screening, mortality, and survival among women ages 50 years and over (1987-2005). *Cancer Epidemiol Biomarkers Prev*. 2009;18:121-131.

152. Morris AM, Billingsley KG, Baxter NN, Baldwin LM. Racial disparities in rectal cancer treatment: a population-based analysis. *Arch Surg*. 2004;139:151-155; discussion 156.

153. Gordon HS, Street RL Jr, Sharif BF, Kelly PA, Soucek J. Racial differences in trust and lung cancer patients' perceptions of physician communication. *J Clin Oncol*. 2006;24:904-909.

154. Field JD, Howerton MW, Lai GY, et al. Barriers to recruiting underrepresented population to cancer clinical trials: a systematic review. *Cancer*. 2008;112:228-242.

155. Gross C, Filardo G, Mayne ST, Krumholz HM. The Impact of socioeconomic status and race on trial participation for older women with breast cancer. *Cancer*. 2005;103:483-491.

156. Zamanian K, Brown LG, Thrackey M, et al. Ethnic identity and depression in Mexican-American elderly. *Hisp J Behav Sci*. 1991;13:236-237. Available at: http://hjb.sagepub.com/content/vol13/issue2/.

157. McCaskill-Stevens W, McKinney MM, Whitman CG, Minasian LM. Increasing minority participation in cancer clinical trials: the minority-based community clinical oncology program experience. *J Clin Oncol*. 2005;23:5247-5254.

158. Swanson GM, Ward AJ. Recruiting minorities into clinical trials: toward a participant-friendly system. *J Natl Cancer Inst*. 1995;87:1745-1759.

159. Wendler D, Kington R, Madans J, et al. Are racial and ethnic minorities less willing to participate in health research? *PloS Med*. 2006;3:e19.

160. Homer M, Ries LA, Krapcho M, et al. SEER Cancer Statistics Review. 1975-2006. Bethesda, MD: National Cancer Institute; 2009.

161. Kim J, Gonzalez P, Wang-Letzkes MF. Ashing-Giwa KT. Understanding the cultural health belief model influences health behaviors and health-related quality of life between Latina and Asian-American breast cancer survivors. *Support Care Cancer*. 2009;17:1137-1147.

162. Aziz NM, Rowland JH. Cancer survivorship research among ethnic minorities and medically underserved groups. *Oncol Forum*. 2002;29:789-801.

163. Kagawa-Singer M, Chung RC-Y. Toward a new paradigm: a cultural systems approach. In: Kurasaki K, Okazaki S, Sue S, eds. Asian American Mental Health: Assessment Theories and Methods. New York, NY: Kluwer Academic/Plenum Publishers; 2002:47-66.
166. Montague L, Green CR. Cancer and brain-  

through pain’s impact on a diverse popula-  

tion. Pain. 2009;10:549-561.

167. van Ryn M. Research on the provider  

contribution to race/ethnicity disparities  

in medical care. Med Care. 2002;40(1  

suppl):140-151.

168. Culver JL, Arena PL, Antoni MH, Carver  

CS. Coping and distress among women  

under treatment for early stage breast  

cancer: comparing African Americans,  

Hispanics and non-Hispanic Whites.  

Psychooncology. 2002;11:495-504.

169. Kinney AY, Bloor LE, Dudley WN, et  

al. Kinney AY, Bloor LE, Dudley WN, et  

al. Palliative care in patients with advanced  
cancer. J Palliat Med. 2005;8:627-633.

170. Zolkipli FMT, Ng T, Leong MC, et  

al. Effect of age on quality of life in  
cancer patients. J Palliat Care. 2009;  

25(4):223-229.

171. Green CR, Anderson KO, Baker TA, et  

al. The unequal burden of pain: confronting  
racial and ethnic disparities in pain.  
Pain Med. 2003;4:277-294.

172. Crawley LM, Racial, cultural, and ethical  
factors influencing end-of-life care. J Pal-  

liat Med. 2005;(8(suppl 1)):S58 –S69.

173. Von Gunten CF. Interventions to manage  
symptoms at the end of life. J Palliat Med.  
2005;(8 suppl 1):S88 –S94.

174. Crawley L, Kaga-W-Singer M. Racial, Cul-  
tural, and Ethnic Factors Affecting the  
Quality of End-of-Life Care in California:  
Findings and Recommendations. Oak-  
land, CA: California HealthCare Founda-  
tion; March 2007.

175. Smith AK, Earle CC, McCarthy EP. Racial  
and ethnic differences in end-of-life care:  
perceptions of seriously ill patients and  
their family members. CMAJ. 2006;174:  
627-633.

176. Shrank WH, Kuttner JS, Richardson T, et  

al. Focus group findings about the influ-  
ence of culture on communication prefer-  
ces in end-of-life care. J Gen Intern Med.  
2005;20:703-709.

177. Hankache A, Kronman AC, Young-Yu Y,  
Ash AS, Emanuel E. Racial and ethnic  
differences in end-of-life costs: why do  
majority costs more than whites? Arch  
Intern Med. 2009;169:493-501.

178. Kwak J, Haley WE. Current research  
findings on end-of-life decision making  
among racially or ethnically diverse  
groups. Gerontologist. 2005;45:634-641.

179. Pinkowski MD. End-of-life care: communi-  
cation and a stable patient-physician rela-  
tionship lead to better decisions. CA  
Cancer J Clin. 2009;59:217-219.

180. Docherty A, Owens A, Asadi-Lari M, et  

al. Knowledge and information needs of infor-  
mal caregivers in palliative care: a qualita-  
tive systematic review. Palliat Med. 2008;  
22:153-171.

181. Foley KL, Tung HJ, Mutran EJ. Self-gain  
and self-loss among African American and  
white caregivers. J Gerontol B Psychol Sci  
Soc Sci. 2002;57:S14 –22.

182. Haley WE, Allen RS, Reynolds S, et  

al. Family issues in end-of-life decision  
making and end-of-life care. Am Behav  
Sci. 2002;46:284-298.

183. Mendez-Luck CA, Kennedy DP, Wallace  
SP. Guardians of health: the dimensions of  
elder caregiving among women in a  
Mexican City neighborhood. Soc Sci Med.  
2009;68:228-234.

184. Zhan HJ. Chinese caregiving burden and  
the future burden of elder care in life-  
course perspective. Int J Aging Hum Dev.  
2002;54:267-290.

185. John R, Hennessy C, Dyeson TB, Garrett  
MD. Toward the conceptualization and  
measurement of caregiver burden among  
Pueblo Indian family caregivers. Gerontolo-  
tist. 2001;41:210-219.

186. Kaga-W-Singer M, Wielisch D. Breast can-  
cer patients’ perceptions of their hus-  
bands’ support in a cross-cultural context.  
Psychooncology. 2002:1-14.

187. Braun UK, Beuth RJ, Ford ME, McCul-  
lough LB. Voices of African American,  
Caucasian, and Hispanic surrogates on the  
burdens of end-of-life decision making.  
J Gen Intern Med. 2008;23:267-274.

188. Kaga-W-Singer M, Kassim-Lakha S. A  
strategy to reduce cross-cultural miscom-  
munication and increase the likelihood of  
 improving health outcomes. Acad Med.  
2003;78:577-587.

189. Ting-Toomey S. Communicating Across  
Cultures. New York, NY: Guilford Press;  
1999.

190. Chiou Q, Lee WS, Gao F, et al. Cancer  
patients’ preferences for communication  
of unnoticeable news: an Asian perspec-  
tive. Suppz Care Cancer. 2006:14:818-824.

191. Freeman B. Offering truth. One ethical  
approach to the uninformed cancer pa-  
tient. Arch Intern Med. 1993:153:572-576.

192. Back AL, Arnold RM, Baife WF, Tulsky JA,  
Fryer-Edwards K. Approaching difficult  
communication tasks in oncology. CA  
Cancer J Clin. 2005;55:164-177.

193. Baider L, Surbone A. Cancer and the  
family: the silent words of truth. J Clin  
Oncol. 2009.

194. Jokowitza A, Glick S, Geunzheidt B. Truth-  
telling in a culturally diverse world.  
Cancer Invest. 2006;24:786-789.

195. Seargent HR, Gafford J. Cultural diversity  
at the end of life: issues and guidelines for  
family physicians. Am Fam Physician.  
2005;71:515-522.

196. US Department of Health and Human  
Services. National Standards for Cultur-  
ally and Linguistically Appropriate Ser-  
vices in Healthcare. Washington, DC: U.S.  
Department of Health and Human Ser-  
vices, OPHS, Office of Minority Health;  
March 2001.

197. National Network of Libraries of Medi-  
cine. Minority Health Concerns: Cul-  
tural Competency Resources. Available  
at: http://nlm.nih.gov/mcr/resources/  
community/competency.html. Accessed  
August 14, 2009.

198. Institute of Medicine. Toward Health Eq-  
uity and Patient-Centeredness: Integrating  
Health Literacy, Disparities Reductions  
and Quality Improvement: Workshop  
Summary. Washington, DC: The National  
Academies Press; 2009.

199. McNeill JA, Reynolds J, Nye ML. Unequal  
quality of cancer pain management: dispar-  
ity in perceived control and proposed  
solutions. Oncol Nurs Forum. 2007;34:  
1121-1128.

200. Center to Reduce Cancer Health Dispari-  
ties. Bethesda, MD: Patient Navigation  
Research Program (PNRP), National Can-  
cer Institute; 2009.

201. Kaga-W-Singer M. Bamboo and oak: differ-  
ences in adaptation to cancer between  
Japanese-American and Anglo-American  
patients. Unpublished dissertation. Los  
Angeles, CA: University of California Los  
Angeles; 1988.