A Culturally Competent Model Of Care for African Americans

Josepha Campinha-Bacote

African Americans are one of the largest ethnic groups in the United States. Data from the U.S. Department of Commerce, Bureau of the Census (2001) reveal that there are approximately 34,333,000 African Americans residing in the United States, representing 12.1% of the total population. The African-American population is expected to increase to 40.2 million by 2010 (American Demographics, Inc., 1991). Health disparities among the African-American population include life expectancy, heart disease, hypertension, infant morality and mor - bidity rates, cancer, HIV/AIDS, violence, type 2 diabetes mellitus, and asthma. The purpose of this article is to address the issue of health disparities among African Americans by providing nurses with a practice model of cultural competence.

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Key Words: **African Americans, health disparities, cultural assessment, cultural competence, culture, diversity, inequality, cultural awareness, racism.**

African Americans are largely the descendants of Africans who were brought forcibly to the United States as slaves between 1619 and 1860. The literature contains conflicting reports of the exact number of slaves that arrived in the U.S., with varying estimates revealing that anywhere from 3.5 to 24 million slaves landed in the Americas during the slave trade era. African-American slaves generally settled in Southern states, and currently, over 50% of African Americans still live in the South; 19% live in the North and Northeast, 9% live in the West, and 19% live in the Midwest (Campinha-Bacote, 2008). The highest concentration of African Americans can be found in metropolitan areas, with over 2 million residing in New York City and over 1 million living in Chicago (U.S. Department of Commerce, Bureau of the Census, 2001). Watts (2003) asserts that race is an issue for African Americans, and "the Black experience" in America is markedly different from that of other immigrants, specifically in terms of the extended period of the institution of slavery and the issue of skin color as a means for dehumanization of Black persons.

Josepha Campinha-Bacote, PhD, MAR, PMHCNS-BC, CTN, FAAN, *is President, Transcultural C.A.R.E. Associates, Cincinnati, OH.*

Author's Note: *Transcultural C.A.R.E. Associates is an organization that provides clinical, administrative, research, and educational services related to transcultural health care and mental health issues.*

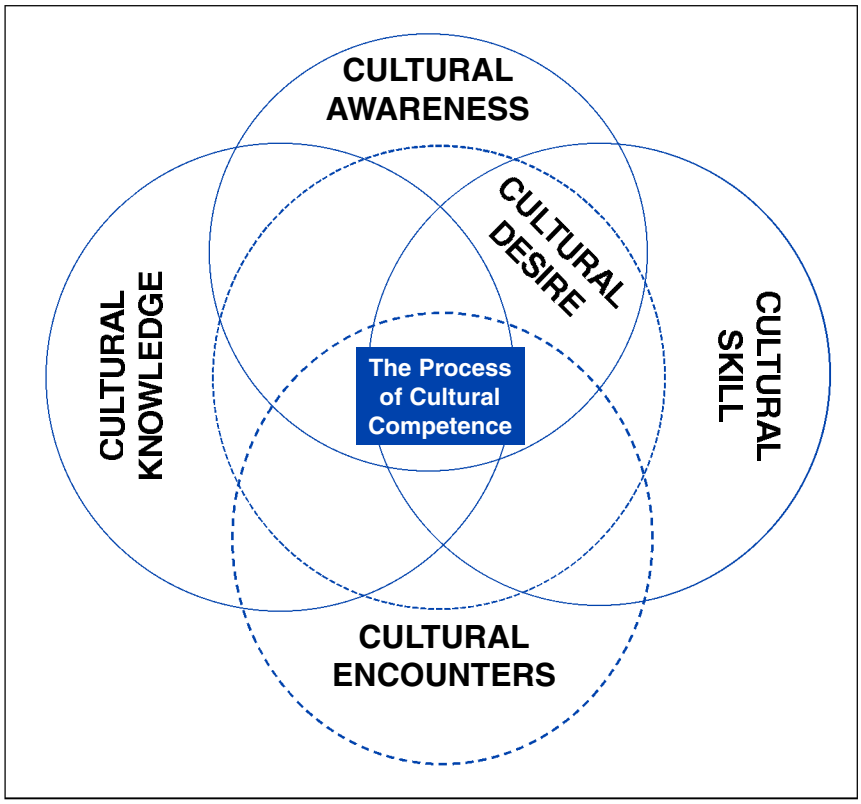
A Model of Cultural Competence

The Process of Cultural Competence in the Delivery of Healthcare Services is a practice model of cultural competence that defines cultural competence as the ongoing process in which the nurse continuously strives to achieve the ability and availability to work effectively within the cultural context of the patient (individual, family, community) (Campinha-Bacote, 2007). This practice model requires nurses to see themselves as becoming culturally competent rather than being culturally competent, and it involves the integration of cultural desire, cultural awareness, cultural knowledge, cultural skill, and cultural encounters (see Figure 1). Each of these constructs will be applied to caring for the African-American patient.

Cultural Desire

Cultural desire is defined as the motivation of the nurse to "want to" engage in the process of becoming culturally competent with African-American patients; not the "have to" (Campinha-Bacote, 1998). Cultural desire is the pivotal construct of cultural competence that provides the energy source and foundation for one's journey toward cultural competence. Humility is a key factor in addressing one's cultural desire. Nurses who are humble have a genuine desire to discover how their patients think and feel differently from them. Cultural humility is a quality of seeing the greatness in others and coming into the realization of the dignity and worth of others. As health care professionals, nurses do not have to accept the patient's belief

Figure 1.
The Process of Cultural Competence in the Delivery of Health Care Services



system; however, nurses must treat each person as a unique human being worthy and deserving of love and care. In this sense, cultural desire is expressed in terms of human dignity, human rights, social justice, and equity (Campinha-Bacote, 2005). Research continues to demonstrate a direct correlation between inequality and negative health outcomes, and it is because of this link that nurses must consciously connect cultural competence with social justice. Stacks, Salgado, and Holmes (2004) contend that when cultural competence partners with social justice, equality in health outcomes can finally be achieved for all, regardless of race/ethnicity, language, gender, religion, or sexual orientation.

Cultural Awareness

Cultural awareness is the conscious self-examination and in-depth exploration of our personal biases, stereotypes, prejudices, and assumptions that we hold about individuals who are different from us. In addressing cultural awareness, nurses must ask the question, "Am I aware of any biases or prejudices that I may have toward African-American patients?" An example of one unconscious area of bias may be the African-American dialect.

Although the dominant language spoken among African Americans is English, there is a way of speaking among some African Americans that sociolinguists refer to as *African American English (AAE).* These terms include *Black English, Ebonics, Black Vernacular English (BEV),* and *African American Vernacular English (AAVE)* (Bland-Stewart, 2005). The major problem that AAE speakers face is prejudice. Most people believe that AAE is inferior to Standard American English. At times, African Americans who use AAE are misinterpreted as being uneducated.

A nurse's personal beliefs and biases about African Americans may lead to unequal treatment, misdiagnosis, and over-medication (Levy, 1993; Smedley, Stith, & Nelson, 2002). For example, African Americans are at a higher risk of misdiagnosis for psychiatric disorders, and therefore, may be treated inappropriately with drugs. Studies have found that African Americas are more likely to be over-diagnosed with having a psychotic disorder and more liable to be treated with antipsychotic drugs, regardless of diagnosis (DelBello, Soutullo, & Strakowski, 2000; Lawson, 1999; Strakowski, McElroy, Keck, & West, 1996; Strickland, Lin, Fu, Anderson, & Zheng,1995). While there are several possible explanations, DelBello et al. (2000) contend that one plausible explanation is that clinicians perceived African Americans to be more aggressive and more psychotic, and as a result, were prescribed the antipsychotics.

In examining the construct of cultural awareness, nurses must also examine the possibility of racism and ask the question, "Is there racism in health care?" While previous research attributed the problem of health disparities among African Americans and other minority groups to access-related factors, income, age, comorbid conditions, insurance coverage, socioeconomic status, and expressions of symptoms; the Institute of Medicine (IOM) cites racial prejudice and differences in the quality of health as possible reasons for increased disparities (Burroughs, Maxey, & Levy, 2002; Smedley et al., 2002; Stolberg, 2001).

Cultural Knowledge

Cultural knowledge is the process of seeking and obtaining a sound educational base about African Americans (Campinha-Bacote, 2007). In acquiring this knowledge, nurses must focus on the integration of three specific

issues: health-related beliefs about practices and cultural values, disease incidence and prevalence, and treatment efficacy (Lavizzo-Mourey, 1996). Because most African Americans tend to be suspicious of health care professionals, they tend to see a physician or nurse only when absolutely necessary and may use home remedies to maintain their health and treat specific health conditions. Some African Americans, particularly of Haitian background, may believe in sympathetic magic. Sympathetic magic assumes everything is interconnected and includes the practice of imitative and contagious magic. Contagious magic entails the belief that once an entity is physically connected to another, it can never be separated; what is done to a specific part is also done to the whole. This type of belief is seen in the practice of voodoo, when an individual will take a piece of the victim's hair or fingernail and place a hex, which they believe will cause the person to become ill (voodoo illness) (Campinha-Bacote, 1992).

Imitative magic assumes the belief that "like follows like." For example, a pregnant woman may sleep with a knife under her pillow to "cut" the pains of labor. African Americans consider themselves spiritual beings, and God is thought to be the supreme healer. Spiritual beliefs strongly direct many African Americans as they cope with illness and the end of life. In a review of the literature on spiritual beliefs and practices of African Americans, Johnson, Elbert-Avila, and Tulsky (2005) noted that "spiritual beliefs and practices are a source of comfort, coping, and support, and are the most effective way to influence healing; God is responsible for physical and spiritual health, and the doctor is God's instrument" (p. 711).

In regard to disease incidence and prevalence, Underwood and colleagues (2005) assert that African Americans experience an "excessive burden of disease." When examining the relationship of social characteristics, such as education, income, and occupation to health indicators, African Americans have worse indicators when compared to Caucasians (Navarro, 1997). African Americans are at greater risk for many diseases, especially those associated with low income, stressful life conditions, lack of access to primary health care, and negating health behaviors.

Hypertension is the single greatest risk factor for cardiovascular disease and heart attacks among African Americans. Compared with hypertension in other ethnic groups, hypertension among African Americans is more severe, more resistant to treatment, and begins at a younger age, and the consequence is significantly worse, including organ damage (Brewster, van Montfrans, & Kleijnen, 2004; Moore, 2005). African Americans also experience higher overall cancer incidence and mortality rates, and less than 5-year survival rates when compared to non-Hispanic Caucasian, Native American, Hispanic, Alaskan Native, Asian American, and Pacific Islander population groups (Underwood & Powell, 2006). Because African Americans are concentrated in large inner cities, they are at risk for being victims of violence. Death due to violence is the sixth leading cause of death among African Americans (National Center for Health Statistics, 2002). It is also noted that African Americans have a disproportionally higher rate of poor asthma outcomes, including hospitalizations and deaths. Deaths due to asthma are three times more common among African Americans than among Caucasians (Asthma and Allergy Foundation of America and the National Pharmaceutical Council, 2006).

African Americans suffer from certain genetic conditions. Sickle cell disease is the most common genetic disorder among the African-American population, affecting one in every 500 African Americans. In addition to sickle cell disease, glucose-6-phosphate dehydrogenase deficiency, which interferes with glucose metabolism, is another genetic disease found among African Americans. Finally, AIDS contributes to the lower life expectancy of African Americans compared to European Americans. In 2003, African Americans, who make up approximately 12% of the U.S. population, accounted for half of the HIV/AIDS cases diagnosed. Treatment efficacy, especially the field of ethnic pharmacology, is important to address when obtaining cultural knowledge. Examples of drugs that African Americans respond to or metabolize differently are psychotropic drugs, immunosuppressants, antihypertensives, cardiovascular drugs, and antiretroviral medications (Burroughs et al., 2002; Campinha-Bacote, 2007; Dirks, Huth, Yates, & Melbohm, 2004; Glazer, Morganstern, & Doucette, 1993). For example, Dirks et al. (2004) found that the oral bioavailability of specific immunosuppressants in African Americans was 20 and 50% lower than in non-African Americans.

In obtaining cultural knowledge of health-related beliefs practices and cultural values, disease incidence and prevalence, and treatment efficacy among African Americans, it is critical for nurses to remember the concept of intra-cultural variation. There are marked differences within as well as across cultural groups (Campinha-Bacote, 2007). African Americans are not a homogenous group, but rather, reflect a very heterogeneous group composed of a gene pool of over 100 racial strains. Therefore, nurses must develop the skill to conduct a cultural assessment with each African-American patient.

Cultural Skill

Cultural skill is the ability to collect relevant cultural data regarding the patient's presenting problem, as well as accurately perform a culturally based, physical assessment in a culturally sensitive manner (Campinha-Bacote, 2007). The goal of a cultural assessment is to explore the

patient's explanation of his or her illness. Kleinman (1980, p. 106) finds it useful to ask the following open-ended questions in eliciting the details of the patient's explanatory model:

- What do you call your problem? What name does it have?
- What do you think has caused your problem?
- Why do you think it started when it did?
- What do you think your sickness does to you? How does it work?
- How severe is it? Will it have a short or long course?
- What do you fear the most about your sickness?
- What are the chief problems your sickness has caused for you?
- What kind of treatment do you think you should receive? What are the most important results you hope to receive from this treatment?

Nurses also need to develop cultural skill when performing a physical assessment with African-American patients. In performing a culturally based physical assessment, Bloch (1983) encourages nurses to internally ask questions such as, "How does skin color variation influence assessment of skin color changes and its relationship to the disease process?" This question raises important concerns for the African-American patient. Nurses are trained in the art of using alterations in skin color and deviations from an individual's normal skin tone to aid with diagnoses. For example, yellow jaundice is a sign of a liver disorder; pink and blue skin changes are associated with pulmonary disease; and ashen or gray color signals cardiac disease (Salcido, 2002). However, these acquired assessment skills are based on a Eurocentric rather than a melanocentric approach to skin assessment. Assessing the skin of most African-American clients requires different clinical skills from those for assessing people with white skin (Campinha-Bacote, 2008). For example, pallor in dark-skinned African Americans can be observed by the absence of the underlying red tones that give the brown and black skin its "glow" or "living color." Lighter-skinned African Americans appear more yellowish brown, whereas darker-skinned African Americans appear ashen. Cyanosis and blood oxygenation levels may present differently in dark-skinned clients than in light-skinned clients. For example, some dark-skinned African-American patients may have very blue lips, which may give a false impression of cyanosis. In striving toward a melanocentric approach to assessing the skin of culturally diverse patients, Purnell and Paulanka (2003) offer the following guidelines for assessing skin variations: 1) establish a baseline color (ask a family member), 2) use direct sunlight, if possible, 3) observe areas with the least amount of pigment, 4) palpate for rashes, and 5) compare skin in corresponding areas.

Cultural Encounters

Cultural encounter is the deliberate seeking of face-to-face interactions with African-American patients. Ting-Toomey (1999) contends that effective cultural encounters should consist of "mindful intercultural communications" and argues that the opposite of mindful cross-cultural communication is "mindless stereotyping" (p. 16), which is a closed-ended, exaggerated over-generalization of a group of people based on little or no external validity. Negative encounters from health care professionals can greatly affect African Americans' decision to seek medical attention (McNeil, Campinha-Bacote, Tapscott, & Vample, 2002). One study reported that 12% of African Americans, compared to 1% of Caucasians, felt that health care practitioners treated them unfairly or with disrespect because of their race (Kaiser Family Foundation, 2001). Because most African Americans tend to be suspicious of health care professionals, effective cultural encounters are key in establishing a trusting relationship. The case study in Figure 2 presents a communication gap between the nurse and an African-American patient.

When interacting with African Africans, it is important to know that most prefer to be greeted formally, such as Doctor, Reverend, Pastor, Mr., Mrs., Ms., or Miss. They prefer their surname because the "family name" is highly respected and connotes pride in their family heritage. African-American communication has been described as high-context (Cokley, Cooke, & Nobles, 2005). They tend to rely on fewer words and use more non-verbal messages than what is actually spoken. The volume of African Americans' voices is often louder than those in some other cultures; therefore, nurses must not misunderstand this attribute and automatically assume this increase in tone reflects anger. African-American speech is dynamic and expressive. They are also reported to be comfortable with a closer personal space than other cultural groups.

Health literacy must also be addressed during the cultural encounter with African Americans; research shows that health literacy is the single best predictor of health status. *Healthy People 2010* defines health literacy as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (U.S. Department of Health and Human Resources, 2002). Low health literacy affects 40% of African Americans and is considered a barrier to receiving optimal health care.

Conclusion

The Process of Cultural Competence in the Delivery of Healthcare Services model (Campinha-Bacote, 2007) provides nurses with a model of practice to render culturally competent and culturally responsive health care to African Americans. In applying this practice model of cultural compe-

Figure 2.
Case Study

The patient presents at a local urologic group as a referral from a community clinic. The nurse reviews the chart prior to entering the examination room. The nurse notes that the next patient is LaShawn, a 24-year-old African-American female with a chief complaint of low pelvic pain and burning during voiding for 2 to 3 weeks. The nurse sees that the chart has been flagged, noting that LaShawn is not employed, has no insurance, and lives in subsidized income housing. The nurse sighs and rolls her eyes, and enters the room to collect the initial assessment information.

Nurse: *(enters the room, looking through the chart) "Why are you here"?*
LaShawn: *(sitting on the end of the examination table) "I told the other nurse, why she didn't tell you?"*
Nurse: *(rolls eyes) "Well, just tell me again."*
LaShawn: *"It hurts to go to the bathroom."*
Nurse: *(sighs) "How long have you had this problem?"*
LaShawn: *"About 2 weeks. It got better because I drank baking soda like my Grandma told me. Then I took a bath in Epsom salts, and that helped too."*
Nurse: *"Well, those things might have made things worse, and you should have come right away."*
LaShawn: *"I don't have insurance, and I was trying to fix myself. I don't know how I will be able to pay the bill, lettin' on getting the medicine for this."*
Nurse: *"OK." (Turns and walks out of the room.)*

The nurse gives a report to the physician as follows: "This patient will not be compliant. She is using home remedies of drinking baking soda water and using Epsom salts. She said she won't get the prescription filled. She also is challenging authority, so I am not sure how well she will listen to you."

As you consider The Process of Cultural Competence in the Delivery of Healthcare Services model of culturally competent care and above case study, identify:

- Potential and actual barriers to communication.
- Issues relative to cultural desire.
- Issues relative to cultural awareness.
- Implications of cultural knowledge as it relates to self care.
- The impact of cultural skill on the outcome of care.
- The impact of cultural encounters on the outcome of care.

tence, nurses should consider the following question: "In caring for African-American patients, have I *ASKED* myself the right questions?" The mnemonic "ASKED" (Campinha-Bacote, 2002, p. 187) represents the following questions:

- *Awareness:* Am I aware of my biases and prejudices toward African Americans, as well as the existence of racism in health care?
- *Skill:* Do I have the skill of conducting a cultural assessment with African-American patients?
- *Knowledge:* Am I knowledgeable about health-related beliefs, practices, and cultural values; disease incidence and prevalence; and treatment efficacy among African Americans?"
- *Encounters:* Do I seek out face-to-face encounters with African Americans?
- *Desire:* Do I really "want to" become culturally competent with African-American patients? ◙

References

American Demographics, Inc. (1991). American diversity. What the 1990 Census reveals about population growth of Blacks, Hispanics, Asians, ethnic diversity, and children – and what I means to you. *American Demographics Desk Reference Series, 1,* 12-13.

Asthma and Allergy Foundation of America and the National Pharmaceutical Council. (2006). *Ethnic disparities in the burden and treatment of asthma.* Washington, DC: Author.

Bland-Steward, L. (2005). Difference or deficit in speakers of African-American English. What every clinician should know. *ASHA Leader, 10*(6), 6-7, 30-31.

Bloch, B. (1983). Bloch's assessment guide for ethnic/cultural variations. In M. Orque, B. Bloch, & L. Monroy (Eds.), *Ethnic nursing care.* St. Louis, MO: C.V. Mosby Co.

Brewster, L., van Montfrans, G., & Kleijnen, J. (2004). Systematic review: Antihypertensive drug therapy in Black patients. *Annals of Internal Medicine, 14*(18), 614-627.

Burroughs, V., Maxey, M., & Levy, R. (2002). Racial and ethnic differences in response to medicines: Towards individualized pharmaceutical treatment. *Journal of the National Medical Association, 94*(10), 1-20.

Campinha-Bacote, J. (1992). Voodoo illness. *Perspectives in Psychiatric Nursing, 28*(1), 11-19.

Campinha-Bacote, J. (1998). *The process of cultural competence in the delivery of healthcare services: A culturally competent model of care* (3rd ed.). Cincinnati, OH: Transcultural C.A.R.E. Associates.

Campinha-Bacote, J. (2002). Cultural competence in psychiatric nursing: Have you "ASKED" the right questions? *Journal of the American Psychiatric Nurses Association, 8*(6), 183-187.

Campinha-Bacote, J. (2005). *A Biblically based model of cultural competence in the delivery of healthcare services.* Cincinnati, OH: Transcultural C.A.R.E. Associates.

Campinha-Bacote, J. (2007). *The process of cultural competence in the delivery of healthcare services: The journey continues* (4th ed.). Cincinnati, OH: Transcultural C.A.R.E. Associates.

Campinha-Bacote, J. (2008). People of African-American heritage. In L. Purnell & B. Paulanka (Eds.), *transcultural health care: A culturally competent approach* (3rd ed.). Philadelphia: F.A. Davis.

Cokley, K., Cooke, B., & Nobles, W. (2005). *Guidelines for providing culturally appropriate services for people of African ancestry exposed to the trauma of Hurricane Katrina.* Washington, DC: The Association of Black Psychologists. Retrieved January 15, 2009, from http://www.abpsi.org/special/hurricane-info1.htm

DelBello, M., Soutuillo, C., & Strakowski, S. (2000). Racial differences in the treatment of adolescents with bipolar disorder (letter). *American Journal of Psychiatry, 157*(5), 837-838.

Dirks, N., Huth, B., Yates C., & Melbohm, B. (2004). Pharmacokinetics of immunosuppressants: A perspective on ethnic difference. *International Journal of Clinical Pharmacology and Therapeutics, 42*(12), 719-723.

Glazer, W.M., Morganstern, H., & Doucette, J.T. (1993). Predicting the long-termrisk of tardive dyskinesia in outpatients maintained on neuroleptic medications. *Journal of Clinical Psychiatry, 54*(4), 133-139.

Johnson, K., Elbert-Avila, K., & Tulsky, J. (2005). The influence of spiritual beliefs and practices on the treatment preferences of African Americans: A review of the literature. *Journal of the American Geriatrics Society, 53*(4), 711-719.

Kaiser Family Foundation. (2001). *African Americans view of the HIV/AIDS epidemic at 20 years.* Menlo Park, CA: Author.

Kleinman, A. (1980). *Patients and healers in the context of culture*. Berkeley, CA: University of California Press.

Lavizzo-Mourey, R. (1996). Cultural competence: Essential measurements of quality for managed care organizations. *Annals of Internal Medicine, 124*(10), 919-921.

Lawson, W. (1999). *Ethnicity and treatment of bipolar disorder*. Presented at the 152nd Annual Meeting of the American Psychiatric Association, May 19, 1999. Washington, D.C.

Levy, R. (1993). Ethnic and racial differences in response to medicines: Preserving individualized therapy in managed pharmaceutical programmes. *Pharmaceutical Medicine, 7*, 139-165.

McNeil, J., Campinha-Bacote, J., Tapscott, E., & Vample, G. (2002). *BESAFE: National minority AIDS education and training center cultural competency model*. Washington, DC: Howard University Medical School.

Moore, J. (2005). Hypertension: Catching the silent killer. *Nurse Practitioner, 30*(10), 16-18, 23-24, 26-27.

National Center for Health Statistics. (2002). Hyattsville, MD: United States Department of Human Services Centers for Disease Control and Prevention National Center for Health Statistics.

Navarro, V. (1997). Race or class versus race and class: Mortality differentials in the U.S. In P.R. Lee & C.L. Estes (Eds.), *The nation's health* (pp. 32-36). Sudbury, MA: Jones & Barlett.

Purnell, L., & Paulanka, B. (2003). *Transcultural health care: A culturally competent approach* (2nd ed.). Philadelphia: F.A. Davis.

Salcido, S. (2002). Finding a window into the skin. *Advances in Skin & Wound Care, 15*(3), 100.

Smedley, B., Stith, A., & Nelson, A. (2002). *Unequal treatment: Confronting racial and ethnic disparities in healthcare.* Washington, DC: National Academy Press.

Stacks, J., Salgado, M., & Holmes, S. (2004). Cultural competence and social justice: A partnership for change. *Transitions, 15*(3), 4-5.

Stolberg, S.G. (2001, March 21). Race gap seen in health care of equally insured patients. *The New York Times.* Retrieved January 15, 2009, from http://query.nytimes.com/gst/fullpage.html?res=9901E2DD1138F932A15750C0A9649C8B63&scp=1&sq=%22Minorities%20get%20inferior%20care&st=cse

Strakowski, S., McElroy, S., Keck, P., & West, S. (1996). Racial influence on diagnosis in psychotic mania. *Journal of Affect Disorders, 39*(2),157-162.

Strickland, T.L., Lin, K.M., Fu, P., Anderson, D., & Zheng, Y. (1995). Comparison of lithium ratio between African-American and Caucasian bipolar patients. *Biological Psychiatry, 37*(5), 325-330.

Ting-Toomey, S. (1999). *Communicating across cultures.* New York: The GuilfordPress.

Underwood, S., Buseh, A., Canales, M., Powe, B., Dockery, B, Kather, T., et al. (2005). Nursing contributions to the elimination of health disparities among African Americans: Review and critique of a decade of research (Part II). *Journal of National Black Nurses Association, 16*(10), 31-47.

Underwood, S., & Powell, R. (2006). Religion and spirituality: Influence on health/risk behavior and cancer screening behavior of African Americans. *The ABNF Journal, 17*(10), 20-31.

U.S. Department of Commerce, Bureau of the Census. (2001). *Census Bureau releases update on African American population.* Retrieved January 30, 2009, from www.census.gov/Press-Release/www/2001/cbo1-34.html

U.S. Department of Health and Human Resources. (2002). *Healthy People 2010: Understanding and improving health* (2nd ed.). Washington, DC: Author.

Watts, R. (2003). Race consciousness and the health of African Americans. *Online Journal of Nursing, 8*(1). Retrieved January 15, 2009, from http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume82003/No1Jan2003/RaceandHealth.aspx

Additional Reading

Brown, D., & Gary, L. (1994). Religious involvement and health status among African-American males. *Journal of the National Medical Association, 86*(11), 825-831.