



PAIN Clinical Updates

INTERNATIONAL ASSOCIATION FOR THE STUDY OF PAIN®

Volume XII, No. 6

December 2004

EDITORIAL BOARD

Editor-in-Chief

Daniel B. Carr, MD
Internal Medicine, Endocrinology,
Anesthesiology
USA

Advisory Board

Elon Eisenberg, MD
Neurology
Israel

James R. Friction, DDS, MS
Dentistry, Orofacial Pain
USA

Maria Adele Giamberardino, MD
Internal Medicine, Physiology
Italy

Cynthia R. Goh, MB BS, FRCP, PhD
Palliative Medicine
Singapore

Alejandro R. Jadad, MD, PhD
Anesthesiology, Evidence-Based
Medicine and Consumer Issues
Canada

Andrzej W. Lipkowski, PhD, DSc
Neuropharmacology and
Peptide Chemistry
Poland

Patricia A. McGrath, PhD
Psychology, Pediatric Pain
Canada

Mohammad Sharify, MD
Family Medicine, Rheumatology
Iran

Bengt H. Sjolund, MD, PhD
Neurosurgery, Rehabilitation
Sweden

Maree T. Smith, PhD
Pharmacology
Australia

Harriët M. Wittink, PhD, PT
Physical Therapy
The Netherlands

Production

Elizabeth Endres, Copy Editing
Kathleen E. Havers, Executive Assistant
Juana Braganza Peck, Layout/Graphics

UPCOMING ISSUES

Immune Function and Pain

Pain and Aging

Pre-emptive Analgesia

Racial Disparities in Access to Pain Treatment

Previous issues of *Pain: Clinical Updates* have addressed race, ethnicity, and culture in relation to the experience and report of pain.^{1,2} This issue focuses on racial and ethnic disparities in access to quality pain care. Barriers to pain care related to the patient, the health care system, and the physician, including poor physician-patient communication or flawed physician decision-making, will be described.

“Race” refers to a group of people who share a set of physical characteristics; it is often associated with real or perceived economic power.

Definitions

“Race” and “ethnicity” are often used interchangeably.⁶ Although both are social constructs, there are important distinctions, primarily from a North American viewpoint but relevant to many diverse societies worldwide. “Race” refers to a group of people who share a set of physical characteristics (i.e., phenotype); it is often associated with real or perceived economic power. “Culture” refers to the beliefs, customs, and behaviors of a group of individuals due to ethnicity, religion, origin, or current residence. “Ethnicity” has many definitions. Yinger’s definition requires that: (1) a group is perceived by others in the society as being different in some combination of language, religion, race, and ancestral homeland with its related culture; (2) its members perceive themselves as a distinctive group; and (3) they participate in shared activities built around their (real or mythical) common origin and culture.⁷ Jones⁸ describes an ethnic group as “any group of people who set themselves apart and/or are set apart by others with whom they interact or co-exist on the basis of their perceptions of cultural differentiation and/or common descent.” To Jones, ethnicity is “all those social and psychological phenomena associated with a culturally constructed group identity.”⁸ This concept of ethnicity emphasizes the intersection of social and cultural processes in the identification of ethnic groups and their interactions.^{7,8} Race and ethnicity are often correlated with socioeconomic status, education, employment, lifestyle habits, and behaviors,⁹ all factors that influence access to pain care, pain assessment, and medical decision-making.

This concept of ethnicity emphasizes the intersection of social and cultural processes in the identification of ethnic groups and their interactions.

Background

The World Health Organization (WHO) defines health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmities.”¹⁰ This year, WHO joined with IASP and the European Federation of IASP Chapters (EFIC) to host a Global Day Against Pain during which the massive disease burdens of acute, chronic, and cancer-related pain were documented.¹¹ Ferrell has estimated pain as the third-largest health problem in the world, with significant implications in terms of impaired sleep and physical disability.¹² Beyond its physical manifestations, pain causes suffering and psychological dysfunction such as depression, post-traumatic stress disorder, and anxiety, further decreasing health.¹³ Quality pain care requires optimal assessment and treatment. Nonetheless, these critically important areas are relatively neglected in medical education, nursing school, and public health curricula.

Medical advances in the United States that have allowed non-Hispanic whites increased longevity and enhanced quality of life have not uniformly benefited racial and ethnic minorities.

Medical advances and interventions in the United States that have allowed non-Hispanic whites increased longevity and enhanced quality of life have not uniformly benefited racial and ethnic minorities.^{9,14} Stark differences in overall health and health care based upon race and ethnicity are well described. Healthy People 2010,¹⁵ an initiative of the U.S. Office of Disease Prevention and Health Promotion, provides an overarching agenda to improve health-related quality of life and eliminate racial and ethnic disparities in health and health care, yet does not address disparities in pain experience or care among racial and ethnic groups. In a report entitled “Unequal treatment: confronting racial and ethnic disparities in healthcare,” the Institute of Medicine touched upon racial and ethnic disparities in analgesic care, but only in patients with cancer and those presenting for emergency care.¹⁶ Yet, much emerging literature indicates that gaps in health status and health care based upon race and ethnicity are also pervasive for pain.^{17–23} In fact, clear evidence suggests that American racial and ethnic minorities suffer more impairment in their physical, social, and emotional health from acute, cancer, and chronic pain than do non-Hispanic whites.

Structural Barriers to Care

Entry into the U.S. health care system is most often based upon health insurance coverage.²⁴ Racial and ethnic minorities comprise a disproportionately large share of the one-third of Americans who lack adequate health insurance. When compared to people with health insurance, those without coverage receive less preventive care (e.g., prostate exams, mammograms) and lower quality medical care once diagnosed with a disease. Overall, the latter group has greater morbidity and mortality. Yet, disparities in health status and health care occur despite similar health insurance coverage and social class. For example, among Medicare recipients, African Americans are more likely to rate their health as fair or poor compared to non-

Hispanic whites of similar socioeconomic status.²⁵ In addition, African Americans of all ages undergoing chronic pain treatment at tertiary care pain centers report poorer overall health than non-Hispanic whites.^{26,27} Other studies reveal that African Americans who have access to pain treatment are more likely than non-Hispanic whites to report that chronic pain is a major financial burden.²⁸

Although pain profoundly affects morbidity and mortality, quality of life, and health care expenditures, health services research on pain management outcomes is insufficient to guide physician practice. Guidelines developed to improve pain care are not universally followed, resulting in undertreatment of pain. Furthermore, these guidelines do not discuss racial and ethnic influences upon the pain experience⁴ or upon long-term outcomes of pain care. In the United States, the recent legal requirement to omit racial and ethnic identifiers in health databases reduces the ability to assess racial and ethnic disparities in pain care. Still, a recent literature review documented structural barriers to assessing pain treatment, difficulties with physician/patient communication, and unequal treatment across all types of pain (acute, chronic nonmalignant, and cancer pain) and treatment settings (including the emergency room, outpatient clinics, and hospitals) for racial and ethnic minorities.¹¹

Sources of Care

Not having a primary care physician or other usual source of care hinders entry into the health care system.²⁴ Individuals without health insurance coverage are more likely to use the emergency room or outpatient clinics in place of primary care physicians. Racial and ethnic minorities are also less likely to have a regular primary care physician and to have less access to specialty care.²⁵ Patients’ ability to secure referrals to medical specialists from their primary care physician also may depend upon their race.²⁹ Schulman and colleagues identified disturbing differences in treating chest pain based upon the patient’s race and gender, with women and ethnic minorities receiving lesser quality care.³⁰

Disparities in access are particularly important given the increased disease burden for many conditions that cause pain (e.g., diabetes, cancer). Thus, not only are race and ethnicity important determinants of health and well-being in general, but they may lead to suboptimal pain treatment. In a recent study, African-American patients with chronic pain were likely to believe that they should have been referred to a pain center sooner than non-Hispanic whites. African Americans also reported decreased access to health care and increased difficulty paying for pain care, and they believed that ethnicity influenced pain care more so than did white Americans.²⁸

Physician-Patient Communication

Communication comprises the intent of the message, what is actually said, what is heard, and how it is interpreted. Trust and mutual respect enhance communication. Clinicians hear intimate, critical information from patients, synthesize it into a diagnosis, and then develop management strategies. This process is prone to misunderstandings and misinterpretations that affect the physician-patient relationship, patient behavior, and patient outcomes. Communication can be impaired by a lack of trust between the two parties or by a patient’s general distrust of the health care system. For instance, the Tuskegee syphilis experiment involved observations of untreated African Americans

to characterize the natural history of this disorder by public health physicians in the 1920s–1950s. Such negative experiences with the health care system soured the perception of the health care system for many Americans (especially racial and ethnic minorities) and undermined their willingness to participate in clinical trials. In addition, socioeconomic factors, literacy, health literacy (the ability to obtain and understand basic health information to make appropriate health decisions), language differences, the willingness of the physician and patient to discuss sensitive issues, as well as the physician’s cultural competency (awareness of the health beliefs and behaviors of different populations) and willingness to listen to the patient’s story influence the effectiveness of communication between health care professionals and their patients. Differences in the way racial and ethnic minorities (and also women) communicate their pain concerns may cause their complaints to be discounted or attributed to a mental health disorder, thus widening disparities in pain care.

Patient Attitudes and Preferences

“Coping” denotes cognitive and behavioral efforts to manage the internal and external demands of the person-environment transaction, particularly when these tax or exceed a person’s normal resources. Coping styles and attitudes may influence an individual’s pain experiences.^{13,31} In general, maladaptive coping (e.g., catastrophizing, repression) and poor adjustment (e.g., poor information seeking, passivity) diminish health and health-related quality of life. Race- and ethnicity-based coping differences have been identified. Data suggest an increased severity of depressive symptoms and post-traumatic stress disorder in African Americans with pain complaints compared with their non-Hispanic white counterparts. Most individuals with depression are untreated, and the comparative reluctance of racial and ethnic minorities to seek treatment for mental health disorders decreases their overall health. Another potential coping-related factor is John Henryism—a pattern of actively coping with stressors by working harder against potentially insurmountable obstacles. Named after a folk hero, this coping style has been demonstrated in African Americans and is associated with hypertension and bodily pain.³¹ Availability and quality of social support and satisfaction with it are also important factors to consider in adaptation to any chronic illness such as pain. Gender, race, and ethnicity influence social support and health relationships for many chronic conditions such as diabetes.

Patient preferences for medical care are regarded as the gold standard for quality of care and for assessing outcomes.^{29,32} In turn, patients’ attitudes can direct their preferences, information-seeking, decision-making, and hence health outcomes. Patients’ misperceptions and misconceptions clearly can undermine their care and limit care providers’ opportunities to obtain critical information from the patient. Both Anderson³³ and Cleeland³⁴ have shown that racial and ethnic minority patients with cancer have attitudes that are barriers to quality pain care. In another study, Green showed that racial and ethnic minority members recognize (more so than non-Hispanic white controls) that race, ethnicity, and gender influence access to both health care and pain care.²⁸ Yet we must go beyond merely assessing barriers and attitudes toward specific treatment interventions. Examining the global treatment burden for pain care is necessary for all patients with pain and for racial and ethnic minorities in particular.

Physician Variability

Pain complaints are a major reason for patients to consult a physician, yet physicians may be ill-equipped to deal with such complaints due to limited knowledge and education.³⁵ In a study of Michigan physicians, differences were evident in physicians’ knowledge, attitudes, and treatment.^{36–39} For instance, many physicians believe that prescribing strong opioid analgesics for review of their prescribing habits, suggesting that fear of regulatory monitoring contributes to undertreatment of pain. The literature also suggests that physicians are confident and satisfied with their pain knowledge as well as in the care they provide for acute, chronic, and cancer pain, regardless of their experience treating these types of pain. Physician goals for pain relief may be shaped by personal experience. More specifically, physicians’ cancer pain relief goals for their patients were always higher when they or a relative had experienced cancer pain.^{38,39} Thus, physician perceptions and goals contribute to variability and unintentional undertreatment of pain. An important limitation of the studies on physician variability cited above is that patients and their families were never asked about their satisfaction or experiences with pain care.

Physician gender also contributes to variability in the treatment that women receive for pain—women physicians are more likely than men physicians to provide adequate pain care for women. Other studies have revealed that physicians have lower goals, are less satisfied with their pain management, and provide lower quality pain care for chronic pain complaints than for acute and cancer pain.^{27,38,39} The quality of physician-prescribed pain care for chronic pain was also lower than the care provided for acute or cancer pain when assessed by hypothetical clinical pain vignettes. Physician variability and sub-optimal treatment strategies for chronic pain may lead to increased suffering and adversely affect the overall health of racial and ethnic minorities.⁴⁰

Pain Medication

How race and ethnicity influence patients to seek pain control is unknown. Disturbing racial disparities in pain management have been identified; for example, the pain complaints of racial and ethnic minorities are handled less aggressively by physicians. Todd showed that Hispanics are more likely to receive no analgesics than non-Hispanic whites during emergency treatment for isolated long bone fractures (e.g., humerus, fibula).²³ In a survey of 13,625 elderly nursing home residents with cancer pain, Bernabei found that African Americans were 63% more likely than Caucasian Americans to receive no daily pain medication⁴¹: 40% of African Americans reported daily pain and 25% of them received no analgesics whatsoever. Morrison showed that New York City pharmacies located in minority neighborhoods were less likely to carry opioid analgesics than those in non-minority neighborhoods.⁴² Thus, poor pain assessment and decreased ability to obtain pain medications complicates appropriate pain management for patients from racial and ethnic minority groups.

Conclusions

Adequate pain management is so important that it is increasingly viewed as a human right.⁴³ Scientific advances offer unprecedented ability to alleviate suffering due to pain, but key knowledge essential for health care planning is still lacking.

For racial and ethnic minorities, pain may have unique health implications in a diverse society that often go unrecognized.³³ Furthermore, little information is available about pain care perceptions, social roles, health service costs, or outcomes in minorities and how they may differ from the situation of non-Hispanic whites. In a world in which more and more persons change nations for personal, political, or other reasons (e.g., famine), the observations in this issue of *Pain: Clinical Updates* apply to more and more countries. To optimize pain management for all, racial and ethnic-specific studies are necessary in all mixed societies to guide potential interventions designed to improve their pain care. In addition, gender, age, and socioeconomic factors that may place racial and ethnic minorities at increased risk for inadequate treatment must be clarified. There is no literature to guide us regarding the presenting pain symptoms, pain duration, and disability due to pain, or to indicate whether the disorders seen in chronic pain patients (e.g., depression, post-traumatic stress disorder) are more severe in racial and ethnic minorities. Women, impoverished, and elderly patients from minority groups may be at additional risk and may experience more difficulty in gaining access to appropriate pain management. Thus, it is particularly important that prospective studies be performed in this vulnerable population to ensure appropriate interventions, improve the quality of pain care, provide safe and efficacious therapy, and enhance quality of life by eliminating racial and ethnic disparities in pain.

References

1. Lasch KE. Pain: Clin Updates 2002; X(5).
2. Morris DB. Pain: Clin Updates 2001; IX(4).
3. Berry PH, Dahl JL. Pain Manage Nurs 2000;1(1):3–12.
4. Jacox A, et al. N Engl J Med 1994;330(9):651–655.
5. O'Mara AM, Arenella C. J Pain Symptom Manage 2001;21(4):290–297.
6. Edwards CL, et al. Pain 2001;94(2):133–137.
7. Yinger JM. Ethnicity: Source of Strength? Source of Conflict. Albany: State University of New York Press, 1994.
8. Jones S. The Archaeology of Ethnicity: Constructing Identities in the Past and Present. New York: Routledge, 1997.
9. Mayberry RM, et al. Med Care Res Rev 2000;57(Suppl 1):108–145.
10. Breslow L. Int J Epidemiol 1972;1(4):347–355.
11. Bond M, Breivik H. Pain: Clin Updates 2004; XII(4).
12. Ferrell BR. Nurs Clin North Am 1995;30(4):609–624.
13. Geisser ME, et al. Pain 1996;66(2–3):207–214.

14. Lillie-Blanton M, et al. Med Care Res Rev 2000;57(1):218–235.
15. Healthy People 2010. Available online: www.healthypeople.gov.
16. Smedley B, et al. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington, DC: National Academies Press, 2003.
17. Bonica JJ. Cancer Nurs 1978;1(4):313–316.
18. Green CR, et al. Pain Med 2003;4(3):277–294.
19. McCracken LM, et al. Clin J Pain 2001;17:249–255.
20. Ng B, et al. Pain. 1996;66(1):9–12.
21. Ng B, et al. Psychosom Med 1996;58(2):125–129.
22. Riley JL, 3rd, et al. Pain 2002;100(3):291–298.
23. Todd K, et al. JAMA 1993;269(12):1537–1539.
24. Weirick RM, et al. Access to Health Care: Sources and Barriers. Rockville, MD: Agency for Healthcare Research and Quality, 1996.
25. Collins K, et al. U.S. Minority Health: A Chartbook. New York: Commonwealth Fund, 1999.
26. Green CR, et al. J Pain 2003;4(4):176–183.
27. Green CR, et al. J Pain 2003;4(2):82–90.
28. Green CR, et al. J Natl Med Assoc 2004;96(1):31–42.
29. Cooper-Patrick L, et al. JAMA 1999;282(6):583–589.
30. Schulman KA, et al. N Engl J Med 1999;340(8):618–626.
31. James SA, et al. Am J Epidemiol 1987;126:664–673.
32. Ibrahim SA, et al. Arthritis Rheum 2002;46(9):2429–2435.
33. Anderson K, et al. Pain 2003;4(2):95.
34. Cleeland CS, et al. Ann Intern Med 1997;127(9):813–816.
35. Weisse CS, J Gen Intern Med 2001;16(4):211–217.
36. Green CR, et al. Pain Med 2001;2(4):317–327.
37. Green CR, et al. Pain Med 2002;3(1):56–65.
38. Green CR, Wheeler JR. Pain Med 2003;4(1):8–20.
39. Green CR, et al. J Pain 2003;4(22).
40. Chibnall J, et al. Pain Med 2000;1(231–237).
41. Bernabei R, et al. JAMA 1998;279(23):1877–1882.
42. Morrison RS, et al. N Engl J Med 2000;342(14):1023–1026.
43. Brennan F, Cousins MJ. Pain: Clin Updates 2004; XII(5).

Carmen R. Green, MD

Department of Anesthesiology

University of Michigan Medical School

1500 E. Medical Center Drive

IH247 University Hospital

Ann Arbor, MI 48109-0048, USA

Tel: 734-936-4240

Fax: 734-936-9091

Email: carmeng@umich.edu.

IASP was founded in 1973 as a nonprofit organization to foster and encourage research on pain mechanisms and pain syndromes, and to help improve the care of patients with acute and chronic pain. IASP brings together scientists, physicians, dentists, nurses, psychologists, physical therapists, and other health professionals who have an interest in pain research and treatment. Information about membership, books, meetings, etc., is available from the address below or on the IASP Web page: www.iasp-pain.org. Free copies of back issues of this newsletter are available on the IASP Web page.

Timely topics in pain research and treatment have been selected for publication but the information provided and opinions expressed have not involved any verification of the findings, conclusions, and opinions by IASP. Thus, opinions expressed in *Pain: Clinical Updates* do not necessarily reflect those of IASP or of the Officers or Councillors. No responsibility is assumed by IASP for any injury and/or damage to persons or property as a matter of product liability, negligence, or from any use of any methods, products, instruction, or ideas contained in the material herein. Because of the rapid advances in the medical sciences, the publisher recommends that there should be independent verification of diagnoses and drug dosages.

For permission to reprint or translate this article, contact:

International Association for the Study of Pain, 909 NE 43rd St., Suite 306, Seattle, WA 98105-6020 USA
 Tel: 206-547-6409; Fax: 206-547-1703; email: iaspdesk@iasp-pain.org; Internet: www.iasp-pain.org and www.painbooks.org
 Copyright © 2004, International Association for the Study of Pain®. All rights reserved. ISSN 1083-0707.