

Chiropractic and Public Health: Understanding and Influencing the Determinants of Health

Rand Baird, DC, MPH, FICA, FICC; Claire Johnson, DC, MEd, PhD; Bart N. Green, DC, MEd, PhD

Most of us have had patients tell us we have helped them beyond the reasons why they originally entered our offices. As health practitioners, we know there is not just one, but rather multiple factors that impact health. There are many ways in which we help our patients, though sometimes it may be difficult to put into words.

In the lexicon of public health, the wide variety of factors that affect health are called "[determinants of health](#)."¹ There are many ways we can become more involved in health and wellness and influence the determinants of health. We spend most of our time focusing on individual patients. Patient-centered practice is one of the three primary elements of evidence-based practice and is an area in which chiropractors excel.² However, incorporating these same skills into efforts toward our communities will allow us to become more involved in improving the health care of the public.

The chiropractic approach to health recognizes the patient's innate, homeostatic power to heal, which includes physical, psychosocial, emotional and/or spiritual components.³ As [D.D. Palmer wrote](#), "Functions performed in a normal manner and amount result in health. Diseases are conditions resulting from either an excess or deficiency of functioning."⁴ Interestingly, this description is very similar to the World Health Organization's definition of health: "A state of complete physical, mental and social well-being, and not merely the absence of disease."⁵

So, it seems that we may be able to offer ways to help the health of individuals and populations through this model. Understanding the determinants of health can help us to be more effective in providing care to our patients and our communities. Here are some examples of how chiropractors can address various determinants of health.

10 Determinants of Health

Socioeconomic Status and Poverty: Patients with low income experience greater health disparity than those with higher income.⁶ Offering assistance to patients who have difficulty accessing or paying for care is one way to help. Some chiropractors develop entire programs to serve their community. For example, [Kopansky-Giles, et al., developed a program that successfully integrated chiropractic](#) within a collaborative community-based teaching clinic to address the needs of poor communities.⁷ Their project demonstrated good clinical outcomes, high patient satisfaction and collaboration of care with other health care providers. Successful projects like this may provide a model for others to follow.

Access to Health Care Resources: People in some areas of our country have better access to health care than others. Those areas that lack proper resources put their population at risk. Becoming a part of the recognized health-care work force is one way we can become more involved. The

chiropractic profession has the potential to assist in meeting upcoming health-care work force needs. [As Smith and Carber suggest](#), the chiropractic profession has the opportunity to serve a vital role in the health care safety net.⁸

Physical Living Environment: From the air we breathe to the toxic materials we are exposed to on a daily basis, our environment may help or harm our health. We can educate our patients about healthy food choices, smoking cessation and healthy cleaning materials. We can also support local public health programs and policies that may help improve living conditions. For example, the World Federation of Chiropractic's [Chiropractors Against Tobacco](#) campaign is in alignment with the WHO Tobacco-Free Initiative. These efforts show how we can support our patients, communities and worldwide health campaigns to reduce harmful effects of tobacco on health.⁹

Work Environment and Employment: Both of these variables can impact mental and physical health. We can successfully manage a variety of conditions and can help keep the work force healthy, especially in the area of neuromusculoskeletal conditions. We can perform ergonomic evaluations to help a patient prevent an injury from recurring. We can also participate in community or workplace programs by providing education that will promote sound ergonomics and healthier workplace environments.

Education: Level of education has an influence on health outcomes. Patients with less formal education tend to have worse health outcomes than those who have more education. It is documented that most chiropractors provide positive patient interactions and have high patient satisfaction with care.^{10,11} This may help us educate both individuals and our communities. Because we are approachable, we have the potential to disseminate prevention, wellness and health-promotion messages especially well to the populations that are most in need.

Maternal, Infant and Child Health: Doctors of chiropractic have the ability to guide effective health care for women and children. For example, [a recent evidence-based consensus panel](#) reviewed chiropractic care approaches for infants, children and adolescents.¹² This panel suggests that activities we can provide include well-patient visits, counseling on physical activity, nutrition, injury prevention and healthy lifestyles, and recognizing serious or life-threatening conditions that should receive urgent care.¹² Other studies have reported how chiropractic may provide conservative care for pregnant women with back pain and other symptoms.¹³⁻¹⁴

Social and Family Networks: Family and social networks impact our health. We should be aware of how these affect health so our health-promotion activities may match a community's changing needs. Once we learn more about those needs, we can approach that network in order to deliver specially designed health-promotion programs.

Culture, Race and Ethnicity: Each culture, race and ethnicity may view health differently. Culture is made up of beliefs and attitudes, race is the description of an individual based upon visual characteristics, and ethnicity is made up of behaviors, values, and cultural norms. We need to deliver health messages in a culturally competent manner. For example, [Stevens describes barriers encountered by ethnic minorities](#) in different chiropractic clinics.¹⁵ He saw that each group had their own barriers, expectations and needs. He also evaluated demographic characteristics and described how an ethnic minority community can be well-served by a chiropractic clinic.¹⁶

Religion and Spirituality: For some people, spirituality or religion may provide ways to address health issues, therapies to treat illness, or the means of coping with ill health.¹⁷ Some researchers

have found that religion and spirituality may be connected with health and quality of life.¹⁷

[Research continues to provide more information about the mind-body connection.](#)¹⁸ It is interesting that the chiropractic profession has recognized the philosophical construct of a spiritual and mind-body connection since the early 1900s.¹⁹

Individual Characteristics: Each patient has a unique set of characteristics that affect health. Age, sex and genetics are some of the individual characteristics that we cannot change, but we can be aware of them in order to help our patients. Other individual characteristics can be changed or modified. For example, if a patient has a family history of osteoporosis, we can coach them to consider improving behaviors to reduce the future risk of fracture.

We can also address common childhood injuries and diseases. For example, Leach and Yates created a chiropractic health-education intervention program, including nutrition and youth soccer, to address obesity issues.²⁰ Another example pertains to providing a safe environment for children. [Cox, et al., described how chiropractors can become involved](#) by assisting with a community program to protect children from child abuse.²¹

Holistic Care and Public Health

These determinants of health overlap and have an influence on one another, representing a holistic approach to health. Poverty directly relates to working conditions, physical environment, education, and maternal health. Healthy choices and lifestyles are influenced by education, physical environment and social/family networks. We cannot address one health determinant without considering its interaction with the others. We must look at our patients and communities in a holistic way.

Doctors of chiropractic impact health in many different ways. We may provide culturally competent education, give nutritional advice, perform ergonomic evaluations, instruct children on injury prevention, advocate for access to health care, or get involved in our communities through public health activities. Though we are already doing many of these activities, through a better understanding of the determinants of health, we can better serve the needs of our patients and communities.

For additional information about how you can become more involved in public health efforts, consider joining the Chiropractic Health Care Section of the APHA. Also consider obtaining and reading a copy of the newly published textbook *Introduction to Public Health for Chiropractors.*

References

1. Johnson C, Green BN. [Public health, wellness, prevention, and health promotion: considering the role of chiropractic and determinants of health.](#) *JMPT*, 2009 Jul-Aug;32(6):405-12.
2. Johnson C. Highlights of the basic components of evidence-based practice. *JMPT*, 2008;31(2):91-2.
3. Johnson C, Baird R, Dougherty PE, et al. Chiropractic and public health: current state and future vision. *JMPT*, 2008;31(6):397-410.
4. Palmer D. [The Chiropractor's Adjuster: A Textbook of the Science, Art and Philosophy of Chiropractic for Students and Practitioners.](#) Portland Printing House, 1910.
5. Preamble to the constitution of the World Health Organization as adopted by the International Health Conference. New York, 1946.
6. Johnson C. Poverty and human development: contributions from and callings to the chiropractic profession. *JMPT*, 2007;30(8):551-6.11.

7. Kopansky-Giles D, Vernon H, Steiman I, et al. [Collaborative community-based teaching clinics at the Canadian Memorial Chiropractic College: addressing the needs of local poor communities.](#) *JMPT*, 2007;30(8):558-65.
8. Smith M, Carber LA. Chiropractors as safety net providers: [first report of findings and methods from a US survey of chiropractors.](#) *JMPT*, 2007;30(9):718-28.
9. www.wfc.org/website/WFC/Website.nsf/WebPage/ChiropractorsAgainstTobacco
10. Gaumer G. Factors associated with patient satisfaction with chiropractic care: survey and review of the literature. *JMPT*, 2006;29:455-62.
11. Rowell RM, Polipnick J. A pilot mixed methods study of patient satisfaction with chiropractic care for back pain. *JMPT*, 2008;31:602-10.
12. Hawk C, Schneider M, Ferrance R, et al. [Best practices recommendations for chiropractic care for infants, children, and adolescents: results of a consensus process.](#) *JMPT*, 2009 Oct;32(8):639-47.
13. Khorsan R, Hawk C, Lisi AJ, Kizhakkeveettil A. Manipulative therapy for pregnancy and related conditions: a systematic review. *Obstet Gynecol Surv*, 2009;64:416-27.
14. Lisi AJ. Chiropractic spinal manipulation for low back pain of pregnancy: a retrospective case series. *J Midwifery Womens Health*, 2006;51:e7-10.
15. Stevens GL. [Behavioral and access barriers to seeking chiropractic care: a study of 3 New York clinics.](#) *JMPT*, 2007;30(8):566-72.
16. Stevens GL. Demographic and referral analysis of a free chiropractic clinic servicing ethnic minorities in the Buffalo, NY area. *JMPT*, 2007;30:573-7.
17. Dalmida SG. Spirituality, mental health, physical health, and health-related quality of life among women with HIV/AIDS: integrating spirituality into mental health care. *Issues Ment Health Nurs*, 2006;27(2):185-98.
18. Littrell J. [The mind-body connection: not just a theory anymore.](#) *Social Work Health Care*, 2008;46:17-37.
19. Keating JC, Fleet GT. Thurman Fleet, DC, and the early years of the Concept-Therapy Institute. *Chiropr Hist*, 1997;17:57-65.
20. Leach RA, Yates JM. Nutrition and youth soccer for childhood overweight: a pilot novel chiropractic health education intervention. *JMPT*, 2008;31:434-41.
21. Cox JM, Webber B, Joachim G. [A community program to fight child abuse: the Fort Wayne Children's Foundation and Kids' Law.](#) *JMPT*, 2007;30:607-13.

MAY 2010