Multiple views to address diversity issues: an initial dialog to advance the chiropractic profession

Claire Johnson DC, MSEd\textsuperscript{a,b,*}, Lisa Zaynab Killinger DC\textsuperscript{c}, Mark G. Christensen PhD\textsuperscript{d}, John K. Hyland DC, MPH\textsuperscript{e}, John P. Mrozek DC, MEd\textsuperscript{f}, R. Fred Zuker PhD\textsuperscript{g}, Anupama Kizhakkeveettil BAMS(Ayu), MAOM\textsuperscript{h}, Stephen M. Perle DC, MS\textsuperscript{i}, Tolu Oyelowo DC, MS\textsuperscript{j}

\textsuperscript{a} Editor, Journal of Chiropractic Humanities
\textsuperscript{b} Professor, National University of Health Sciences, Lombard, IL
\textsuperscript{c} Professor, Palmer College of Chiropractic, Davenport, IA
\textsuperscript{d} Assistant Executive Vice President, National Board of Chiropractic Examiners, Greeley, CO
\textsuperscript{e} Senior Chiropractic Specialist, National Board of Chiropractic Examiners, Greeley, CO
\textsuperscript{f} Dean of Academic Affairs, Texas Chiropractic College, Pasadena, TX
\textsuperscript{g} Vice President of Enrollment Management, Texas Chiropractic College, Pasadena, TX
\textsuperscript{h} Associate Professor, Southern California University of Health Sciences, Whittier, CA
\textsuperscript{i} Professor, University of Bridgeport College of Chiropractic, Bridgeport, CT
\textsuperscript{j} Chair, Department of Health Promotion and Wellness, Northwestern Health Sciences University, Bloomington, MN

Key indexing terms: Chiropractic; Cultural competency; Cultural diversity; Education; Minority health; Health occupations

Abstract The purpose of this article is to provide expert viewpoints on the topic of diversity in the chiropractic profession, including cultural competency, diversity in the profession, educational and clinical practice strategies for addressing diversity, and workforce issues. Over the next decades, changing demographics in North America will alter how the chiropractic profession functions on many levels. As the population increases in diversity, we will need to prepare our workforce to meet the needs of future patients and society.

© 2012 National University of Health Sciences.

Introduction

The qualities that make us human and unique as individuals provide context and value for how we communicate and interact in interpersonal and social settings. These communications develop relationships that may produce meaningful contributions and growth for individuals and society. It is generally understood that each person sees the world through his own lens (eg, values, judgment, culture). However, to be contributors to society, it is not necessarily enough to acknowledge that we each have a different way of interacting in the world. To be truly effective, we must
understand and grow from the richness that others offer to the social fabric.

The concept of diversity is composed of much more than skin color, holidays we celebrate, or the language that we speak. Diversity also goes beyond tolerance and is the appreciation of differences in ethnicity, race, socioeconomic status, sex, gender identity, religion, age, and abilities of the members of society, including the health care workforce and the patients we serve.1 Diversity is complex and requires proper attention and study to be valued as a contribution instead of seen as a barrier.

As one of the healing arts, chiropractic has faced many challenges over the years and has grown despite discrimination and bias against its unique methods of health care.2 Because of these challenges, efforts and resources had been directed to fundamentals in preserving the survival of the profession instead of its growth. Thus, development of higher-order abilities may have been underdeveloped until recently. As evidenced by few publications that address issues of diversity in the chiropractic profession,1 research and focus on diversity in our professional activities have much room to grow.

The purpose of this editorial is to capture various viewpoints on the topic of diversity and bring them together in a combined discussion. The multiple viewpoints offered here may assist those in chiropractic as we look for ways to address issues surrounding diversity and prepare for a rich and multidimensional future.

Methods

For the purpose of expanding the dialog on the topic of diversity, the Association of Chiropractic Colleges selected “diversity” as the theme for the 2012 conference, held in Las Vegas, NV, March 16-17. In the opening plenary session titled “Diversity: the Future of Healthcare and the Chiropractic Profession,” panelists were asked to address the changing diversity of the population and its impact on the future of health care and the chiropractic profession from the viewpoints of education, research, and clinical practice. In the closing plenary session titled “Overcoming Barriers: Training, Treating, and Researching in an Increasingly Diverse World,” the speakers focused on the obstacles to diversity in chiropractic education, practice, and research and how we might overcome barriers in these domains. Each of the opening and closing panelists was invited to contribute a section to this collaborative editorial. Of those invited, 8 agreed to participate. The resulting contributions are each author’s reflection on the topic of diversity from his or her unique viewpoint and expertise (Fig 1).

Diversity and Chiropractic: Why We Should Care
Lisa Zaynab Killinger, DC

Diversity in the Chiropractic Profession
Mark G. Christensen, PhD
John K. Hyland, DC, MPH

Overcoming Barriers of Diversity:
Chiropractic Education
John P. Mrozek, DC, MEd

Improving Diversity in Future Chiropractic Graduates
R. Fred Zuker, PhD

Cultural Diversity in Patient Perceptions of Health Care
Anupama Kizhakkeveettil, BAMS(Ayu), MAOM

Diversity from a Minority Point of View
Stephen M. Perle, DC, MS

Overcoming Barriers as a Healthcare Provider.
Tolu Oyelowo, DC, MS.

Fig 1. Expert authors and their topics relating to diversity in the chiropractic profession.
achieve better patient outcomes. Providing the best care possible should be all health professionals’ top priority, so cultural competency training may help us meet that goal. Furthermore, increasing cultural competency in the US health care workforce is a national health priority. The oldest and largest health organization in the United States, the American Public Health Association, remains consistently committed to achieving equity in health status of all Americans through improvements in the cultural awareness of the public health workforce.12

Culturally competent care is important for providing the best care since various ethnicities, religions, races, and other groups all have a unique set of health risks. For example, white men have nearly twice the risk of testicular cancer than black men; yet black men have a significantly higher risk of prostate cancer than other racial groups.11 Women of Asian or European descent have a higher risk of osteoporosis,14 and Native Americans have nearly twice the disability rate due to low back pain than any other group.15,16 As conscientious clinicians, it is important that we know our patients’ relative risk for various diseases and recommend appropriate evidence-based screenings with those risks in mind.

Diversity in the Chiropractic Profession

Mark G. Christensen, PhD
John K. Hyland, DC, MPH

Some of the most accurate data available concerning the chiropractic profession have been gathered over the past 18 years by the National Board of Chiropractic Examiners. Based on extensive, well-designed, and carefully implemented surveys, the National Board of Chiropractic Examiners has published 4 reports that describe the chiropractic profession: Job Analysis of Chiropractic,17 Job Analysis of Chiropractic 2000,18 Job Analysis of Chiropractic 2005,19 and Practice Analysis of Chiropractic 2010.20 These reports catalog the frequency and importance of the many tasks performed by doctors of chiropractic during their daily health care activities and are the basis for the development of the tests of competence required for licensure in the United States. The data presented here are from respondents who reported spending at least 20 hours each week in clinical chiropractic practice.

Questions regarding race/ethnicity and sex of chiropractic practitioners and their patients were included in the first survey in 1991. Data from that survey (reported in 1993) documented that 96% of the profession classified themselves as non-Hispanic white, and 87% were male. This contrasts with their reported patient population, which was described as 65% non-Hispanic white and 40% male. In the 2000 report, responding chiropractors classified themselves as 94% non-Hispanic white and 81% male, while describing their patients as 60% non-Hispanic white and 40% male. The survey responses reported in 2005 were very similar, with 92% of chiropractors self-described as non-Hispanic white and 82% male, whereas their patients were classified as 57% non-Hispanic white and 40% male. Most likely because of a change in wording of the race/ethnicity question (specifically allowing more than one answer), the respondents to the most recent survey reported that they were 85% non-Hispanic white and 78% male. The question regarding patient race/ethnicity did not appear on that survey, but extrapolation from previous data would suggest that approximately 52% of chiropractic

Fig 2. Percentage of non-Hispanic white DCs and patients from 1990 to 2010.

Fig 3. Percentage of male DCs and patients from 1990 to 2010.

Fig 4. Percentage of non-Hispanic white DCs and the US population from 1990 to 2010.
patients were non-Hispanic white. The reported patient sex distribution remained at 40% male. Figs 2 and 3 present the data comparing doctors of chiropractic (DC) and their patients (Pt.), as well as their trends over time.

During the period that doctors of chiropractic and their patients have become somewhat more diverse in their race/ethnicity, the demographics of the US population have also been changing. The 1990 Census reported that 75.6% of respondents chose the classification of non-Hispanic white as their only race/ethnicity. By the 2000 Census, that proportion had decreased to 69.1%; and a further decrease to 63.7% was reported in a 2010 Census Brief. Fig 4 illustrates the comparison of the US population with the chiropractic profession over this 20-year period.

In an attempt to predict future diversity trends among doctors of chiropractic, the 2009 Survey responses were further evaluated based on the number of years in practice. Those who reported being in chiropractic practice for more than 15 years described themselves as 85.5% non-Hispanic white and 82.3% male. The race/ethnicity of those in practice for less than 5 years was essentially identical (85.9%), although there was a smaller proportion of men (64.2%). These findings appear to indicate that, although the more recent additions to the chiropractic profession are more balanced by sex, they are still predominantly white and non-Hispanic.

Practice differences between men and women were investigated further. The proportion of respondents who reported practicing in a rural small town or rural area was similar for women (17.0%) and men (15.6%). A smaller percentage of female respondents identified themselves as non-Hispanic white: 80.0% vs 86.5% of men. Female respondents were much more likely to have a practice where more than 75% of the patients were female (8.7% compared with 4.4%) and somewhat more likely to treat patients less than 5 years of age (83.1% vs 80.2%). A similar 6.0% of male and 5.7% of female respondents reported a primarily geriatric patient population (ie, more than 50% of their patients were older than 65 years).

Overcoming Barriers of Diversity: Chiropractic Education

John P. Mrozek, DC, MEd

Chiropractic has the potential to improve health care if the chiropractic workforce is more representative of the population. A corollary to this is that the profession needs to extend care provision to racially diverse populations. Hence, a more racially diverse chiropractic profession providing health care to racially diverse populations should be a strategic goal of the profession. Indeed, ignoring the issue of diversity in chiropractic college recruitment, education, and care provision would be a big mistake.

To pretend that the issue of diversity simply needs the attention of the recruitment and education arm of a college would be underestimating a much larger and daunting challenge. The literature on cultural diversity provides a confused terminology to clinical teaching on culture and learning objectives that are inconsistent. A good example of the challenge lies in the terminology. The terms multi-culturalism, cultural awareness, and cultural diversity are often used interchangeably. Race, for example, can refer to a biological characteristic or a social construct. What is meant by cultural awareness and sensitivity? How best can we prepare our students to apply their learning to specific cultures and health beliefs, relate to culture bound illness, and formulate a critical response to health inequalities?

Approaches to diversity education often focus on the 4 “Ds” of multiculturalism of dress, diet, dialect, and dance. Although well intended, the 4 “D” approach may not provide the opportunity to address issues such as health disparities and discrimination. Classroom discussion of topics such as cultural sensitivity and health inequalities must be conducted in a “culturally safe” environment to encourage dialog and the exchange of ideas on diversity. The teaching of diversity and cultural sensitivity early in a curriculum shows little impact in later clinical years. Stand-alone courses have little chance to contribute a long-lasting influence without reinforcement throughout the curriculum. Obstacles to effective diversity education include student resistance to formal learning about cultural diversity, discomfort with the subject matter, and personally held views. Students may not wish to discuss issues that are culturally sensitive at the risk of offending others.

Student resistance to cultural diversity education also includes the influence of informal peer networks and the hidden curriculum. A hidden curriculum, functioning at the level of organizational structure, is responsible for much of what is learned in school and takes place outside of formal course offerings. Aspects contributing to the hidden curriculum include the local customs, rituals, and the student’s daily lived experience. The challenge is to explore, debate, and address the tension between the formal, informal, and hidden curriculum with regard to diversity education. The greater challenge is to prepare faculty to encourage this discourse in a safe learning environment and to foster student engagement in the discourse.

The dominant values in chiropractic education placed on the basic clinical sciences and clinical
learning may marginalize the intended outcomes of diversity education. Students understand early the emphasis placed on passing Board examinations and that the payoff resides in studying the biological and clinical sciences. Culturally sensitive subjects dealt with in a bioscience context are perceived as having greater importance and are more readily discussed. Although providing a pretext for avoiding the discussion of personally held views on diversity, the bioscience context does present an opportunity and platform to extend the discourse on diversity and culturally sensitive matters throughout the preclinical and clinical curriculum. Clinical faculty need to be aware of the contextual catalyst to diversity discourse and of the importance of promoting this discourse. The use of real-world clinical encounters as a substrate for engaging in a diversity discourse should be encouraged.

Going forward, desired outcomes of diversity education include encouraging discussion and openness of cultural issues within a safe environment. Curriculum planners aware of the effect that institutional culture and student attitudes have on diversity education can take steps to mitigate that effect. Student engagement on the topic of diversity in curriculum design can ensure that this important stakeholder voice is heard. Faculty development should be focused on promoting diversity and cultural sensitivity discourse. The effectiveness of these efforts should be studied and reported in the literature. As noted earlier, this is a subject that calls for thoughtful literature contributions.

An effective approach to diversity education is more than the sum of its parts. It is made up of recruitment and enrollment efforts targeted on a more racially diverse student population, courses focused on diversity, the provision of a safe environment to promote diversity discourse, an institutional climate that promotes diversity, and a constant effort to ensure that all voices are heard.

### Improving Diversity in Future Chiropractic Graduates

_R. Fred Zuker, PhD_

How can we reach underrepresented students and encourage them to seek higher education and professional training? Often, the term *underrepresented* relates to students of Latino and African heritage; and students of Asian or Native American heritage may also be included depending on the campus.

The following questions present the challenges faced by a campus addressing enrollment and retention of underrepresented students.

| Potential questions that address diversity on our campuses: |
|------------------------------------------------------------|
| • Which stakeholders should be included in the discussion about underrepresented students? |
| • What are the opportunities in our catchment area to reach underrepresented students? |
| • What resources do we have that can reach out to these students - currently enrolled students, faculty, staff and alumni? |
| • Do our recruitment programs facilitate the identification of underrepresented students? |
| • Do our academic support programs provide the resources necessary to help students from non-traditional backgrounds survive and thrive in the demanding environment of the doctor of chiropractic program? |

| Possible solutions to increase diversity through admission/enrollment management practices: |
|-----------------------------------------------------------------------------------------------|
| • Audit recruitment materials and practices to ensure that they are not counterproductive to increasing diversity. Consider the look of published materials, web sites, and representations in social media. |
| • Evaluate if your campus is user friendly to underrepresented, non-traditional students. |
| • Consider where you recruit students and include places where there are populations of diverse students. These may include community colleges, four year colleges and universities in the primary market area of each chiropractic college. |
| • Volunteer to speak at the meetings of organizations that have influence with underrepresented students such as chamber of commerce education committees, church groups, and parent groups. |
| • Invite student groups to visit your campus for tours and information on chiropractic and chiropractic education. |
| • Make underrepresented and non-traditional students feel welcomed when they visit your campus by introducing them to students and faculty with similar backgrounds. |

**Fig 5.** Challenges faced by a campus addressing enrollment and retention of underrepresented students.
The reasons for efforts to reach traditionally underrepresented students are many. One of the most important is the loss of potential talent by the absence of a large and growing number of disenfranchised students who are not able to enter the workforce at a level that is commensurate with their abilities and interests. In addition, the inclusion of students from nontraditional backgrounds adds richness to the educational experience of everyone on the campuses that are successful in recruiting and retaining them.

One of the greatest challenges facing higher education in the United States, including chiropractic education, is finding a way to reach students and especially underrepresented students who are likely candidates for chiropractic education. We are charged to find students who will add to the profession and assist their communities by providing high-quality effective health care. Therefore, we must become more creative and active in overcoming this knowledge gap about chiropractic that exists between potential students and the profession (Fig 5).

Increasing diversity on chiropractic college campuses is a community-wide responsibility. All elements of the campus must be included in our outreach efforts. We must also engage our alumni and other friends of chiropractic who share our interest in diversifying the profession. The imperative to reach out to these underserved groups is not something waiting to happen. It is happening now, and we must position ourselves and our institutions to take every opportunity to reach this pool of talented students that will add incredible richness to our campuses and communities.

Cultural Diversity in Patient Perceptions of Health Care

Anupama Kizhakkeveettil, BAMS(Ayu), MAOM

Health care structures are thoroughly entwined with the economic, political, philosophical, and social system of culture. Thus, culture plays a major role in the practices of physicians. Culture affects health in an assortment of ways, including influencing risk behaviors that can lead to disease exposure. Culture has social, political, and economic impacts on health and health care. Culture can conceptualize health woes such as illness, disease, sickness, and suffering. Culture also influences health care providers and their organizational reactions to health care requirements. The favorable outcome of patient encounters is dependent on the presence of culturally competent health care providers.30

Diversity in ethnicity, race, language, age, sex/gender, religion, education, socioeconomic status, and abilities is observed in the patient population of the United States. Patients bring a wide variety of perspectives and perceptions to clinician offices; therefore, diversity in the health care setting is an important issue because it has an influence on the expectations and treatment outcomes of patients.

Cultural competence is an approach that health care providers can use to improve quality while addressing minority health care disparities. Culturally competent health care can be defined as providing services reverential to the cultural and linguistic needs of patients. It is important to note that, although language and culture have common characteristics, there exists a distinction between the two. As much as language proficiency contributes to cultural competence, it alone is not equivalent to cultural competence. Thus, being bilingual does not make one culturally competent.

Racial and ethnic minorities tend to receive lower-quality health care when compared with nonminorities even when income and insurance conditions are controlled.31 Lack of cultural competence can possibly lead to inconsistencies in patient treatment. Education and training in cultural competence can generate benefits for patients by humanizing the patient-provider interaction when cultural discrepancies exist. Improved confidence in the practitioner and more contentment are reported as benefits of general practitioner culturally competent communication behaviors.31 As well, sex is a factor for quality of health care. Satisfaction with care is not equal between the sexes. Women’s satisfaction is more strongly tied to the connection to their health care provider and quality of health education than men’s satisfaction. Women are more likely to accept delivery of additional information, ask questions, and practice mutual decision-making.32 Differences in communication styles and languages also affect health care.

Language proficiency is the capacity to speak as well as write in a specific language. Language proficiency facilitates the learning of new culture, but it cannot automatically guarantee cultural competence.33 Professional interpreters are needed to translate and advocate for patients to provide culturally competent care.

Developed at personal and organizational levels, cultural competency is considered indispensable for effectual public service delivery. Health care organizations can provide better service delivery by considering the language, lifestyle, values, and norms of the target population. Cultural competency provides a level playing field for addressing racial and ethnic disparities in service delivery. The rationale for cultural competence ranges from quality of care to risk management. As such, cultural competence comprises a fundamental social responsibility.34
Cultural competency can be a challenge to practitioners who are not well versed in the social structures necessary for a successful patient-practitioner encounter. A list of what to do or not do for patients of a particular culture may not be enough to define how to competently provide care to diverse groups of patients presenting in a practice. Practitioners may feel that they are too busy to learn cultural competency or that it is not worth learning if they will not be paid more.

The solution for these issues is specialized training for health care practitioners on the importance of understanding cultural diversity and the process of changing a practice to obtain better outcomes from a diversified patient base. Practice procedures should be examined and modified as appropriate to better serve the diversity of patient cultures seen. Health care practitioners should be hired to reflect the diversity of the patient population served. Administrative time should be granted to practitioners to develop the resources and skills necessary for the task.

Care for patients of diverse backgrounds can become more effective when there is culture sensitivity to asking questions and listening to the patient’s perception of the problem. In addition, practitioners should then explain their perception of the problem and treatment, acknowledge and discuss differences and similarities, and respect the patient’s culture.

Cultural competence necessitates compassion to the uniqueness of religions, customs, and spiritual needs. It also requires an understanding of patient wishes, preferences, and developmental needs. Cultural competence enables health care practitioners to elicit distinct information that is unique to the client to make accurate diagnoses and develop and implement client-centered interventions. Cultural competence increases client and family satisfaction, facilitates positive clinical outcomes, and expands client involvement. Thus, cultural competence should be included as a skill set for health care practitioners.

Diversity from a Minority Point of View
Stephen M. Perle, DC, MS

I propose that understanding the plight of minorities should, in theory, be easy for chiropractic physicians even if they are not a member of a racial minority. I say this because, with approximately 16 million people in the US health care workforce, doctors of chiropractic (DCs), with a population of approximately 60,000 to 70,000, make up approximately 4% of that workforce. Therefore, being a chiropractor makes one a part of a minority group. In popular culture, we can see this when watching TV or movies, as it is rare for there to be a character in the screenplay that is a chiropractic physician. In the rare case a DC character is included, the fact spreads through the chiropractic profession like wildfire. This may be equivalent to how African Americans felt when Bill Cosby (an early African American star) was seen in a TV drama series in 1965.

Unlike some racial minority groups, the chiropractic physician’s status is not inherently visible like skin color or cultural attire. Thus, as long as the DC does not wear an article of clothing or jewelry that identifies him as a DC, no one will know simply by looking at him. Thus, I propose that the historical discrimination that members of the profession have experienced should evoke empathy and thus a compassion for patients, research participants, or chiropractic students who are members of a minority group whether overtly a minority or not.

The American Chiropractic Association Code of Ethics states that “With the exception of emergencies, doctors of chiropractic are free to choose the patients they will serve, just as patients are free to choose who will provide health care services for them. However, decisions as to who will be served should not be based on race, religion, ethnicity, nationality, creed, gender, handicap or sexual preference.”35 A professional’s moral duty to put patients first and treat all patients equally is a lofty goal. Some may pretend to respect this goal, but many who honestly believe that they have no preference for any particular type of human and treat all their patients with equal compassion may still harbor inner prejudice. Recognition of one’s prejudice is one step toward eradicating such prejudice.

What looks like diversity depends upon who is doing the looking. Consider the different viewpoints when a single person, who is a member of a minority, joins a group of individuals who are part of the dominant culture. To the majority, this looks like diversity. They can see it because there is one minority person there, which may be different from what they are used to. To the minority person, this does not at all look like diversity—there is only one minority person. They are the “token” minority. As an example of how this feels, go to a large scientific conference and observe if it feels like an “integrated” conference if you are the only chiropractor there.

Overcoming Barriers as a Health Care Provider
Tolu Oyelowo, DC, MS

Cultural competency and diversity in the clinical setting contribute to providing patient-centered communication and patient-centered care. The goal of patient-centered communication according to Epstein
et al\textsuperscript{36} is to facilitate the provision of care that is consistent with the patient’s values and empowers patients to be active participants in their health care. Patient-centered communication has been linked to improved recovery rates, fewer symptoms, and improved emotional health.\textsuperscript{37} When patients perceive that they have found common ground with their providers, their overall health status improves.\textsuperscript{37}

Patients and providers are simultaneously culturally similar and dissimilar. Potential areas of dissonance in the patient/provider interaction may include the following:

- Stereotyping: Individuals from a specified background do not always reflect the cultural or ethnic characteristics of that population or group.
- Explanatory models: The patient’s and the provider’s explanatory models for disease etiology may differ. Salimbene\textsuperscript{38} describes cultural groups that perceive disease as caused by the evil eye; this may conflict with the provider’s concepts of disease from a biomedical model.
- Distrust: The Tuskegee syphilis study is one example of a violation of patient trust by providers. These and other more current acts of discrimination continue to shape the sense of distrust of the system that persists in some populations today.\textsuperscript{39} Rebuilding trust may necessitate longer-term relationships and a sustained presence in the community.
- Family structure and family identity: Health care decisions in some communities are not made by the person with the presenting complaint; they are made by the community or by the head of household. It is important to ascertain who should be consulted before treatment is initiated.\textsuperscript{38}
- Communication styles: In some African American communities, raising one’s voice may imply honesty and heartfelt feelings; by contrast, some Anglo-Saxon communities perceive the raised voice as contentious. Many Native American communities use the gently limp handshake as a sign of respect; by contrast, this may be perceived as a sign of weakness by those in the Anglo-Saxon community who perceive the strong firm handshake as implying confidence and authenticity. Direct eye contact is perceived by some Asian and Middle Eastern communities as disrespectful and by many Anglo-Saxon communities as evidence of candor.
- Views of professional roles—hierarchical or egalitarian: Persons from places such as Russia and the United States, for example, have historically ascribed to the physician a certain degree of authority and respect. By contrast, persons from some parts of East Africa, for example, Somalia, have a more egalitarian approach to the patient-provider relationship.
- Diseases without illness: In a culture where the health care provider is consulted only when the patient is very ill, preventive care may be less valued. Thus, blood pressure medications, spinal screens, and other preventive measures may be refused or challenged if not carefully explained.
- Terminology: Often highlighted when nonprofessionals are solicited as interpreters; examples include the cervical spine described as the cervix.
- Interpretations of disability: Epilepsy in some cultures is a disability that should be managed. In other cultures such as the Hmong, epilepsy is a unique spiritual gift that should be nourished.\textsuperscript{40}
- Intake forms: The standard intake form can be a challenge to a new immigrant who is not English literate. In addition, reference points such as dates of birth may create challenges for patients from cultures who associate birth contextually. For example, the date of birth may be associated with a significant event.
- Task/relationship: In some cultures, the relationship has greater value than the task. It is more important for the patient to develop a relationship with the provider and, conversely, to have the provider get to know him/her before divulging personal information. This suggests that the initial visit that was conversational and did not yield “pertinent clinical information” may appear unprofitable to the provider but beneficial to the patient who may have told stories about family in lieu of descriptions about the cause of the presenting complaint.
- Time: Individuals from historically Nordic climates may appear more literal with time, whereas those from tropical climates may perceive time conceptually. This has implications for scheduling patient appointments.

The following are suggestions that may assist practitioners with improving cultural competency skills. The LEARN model\textsuperscript{41} addresses communication skills. The acronym stands for the following: Listen with sympathy and understanding to the patient’s perception of the problem; Explain your perceptions of the problem; Acknowledge and discuss the differences and similarities between these perceptions; Recommend treatment while remembering the patient’s
cultural parameters; and Negotiate agreement. It is important to understand the patient’s explanatory model so that treatment (and ultimately compliance) fits into their cultural framework. It is important for practitioners to be aware of personal bias; acknowledge the influence of culture on the individual and the health system; and approach patients with humility; understanding that mistakes will be made, but humility and respect engender forgiveness.

Discussion

By the year 2050, it is estimated that more than half of the US population will be racial minority, whereas some states have already reached this milestone. When compared with other leading health professions, chiropractic has not made similar progress in terms of addressing diversity in the chiropractic workforce. At present, the chiropractic profession is made up of a majority of white men (Figs 6 and 7). If the profession is to embrace diversity and the upcoming changes in the population, a greater diversity in the workforce is needed.

As described in the commentaries above, there are various approaches and considerations that we can use as a profession to address issues of diversity. These are by no means the only views or methods. However, this is an initial attempt to start a dialog about the issues of diversity so that we may better address the upcoming demographic changes in our population.

Limitations

It is recognized that the topics here do not include all topics relevant to addressing diversity. Other topic
areas and approaches are important if we are to properly address diversity in the profession. The purpose of this article was to address important issues and to help establish an initial dialog for additional future discussions.

Conclusion

Over the next decades, changing demographics in North America will alter how the chiropractic profession functions on many levels. As the patient population increases in diversity, we will need to prepare our workforce to better meet the needs of future patients and society.

Funding sources and potential conflicts of interest

No funding sources or conflicts of interest were reported for this study.

References

1. Johnson CD, Green BN. Diversity in the chiropractic profession: preparing for 2050. J Chiro Ed 2012;26(1):1–13.
2. Johnson C. Reflecting on 115 years: the chiropractic profession’s philosophical path. J Chiropr Humanit 2010;17(1):1–5.
3. Day JC. Population profile of the United States: national population projections. Suitland, MD: United States Census Bureau; 2011. Available from: http://www.census.gov/population/www/pop-profile/natproj.html.
4. United States Census Bureau. Population projections:U.S. interim projections by age, sex, race, and Hispanic origin: 2000-2050. Suitland, MD: United States Census Bureau; 2011. Available from: http://www.census.gov/.
5. Anderson LM, Scrimshaw SC, Fullilove MT, Fielding JE, Normand J. Culturally competent health care systems. A systematic review. Am J Prev Med 2003;24(3 suppl):68–79.
6. Tucker CM, Marsiske M, Rice KG, Nielson JJ, Herman K. Patient-centered culturally sensitive health care: model testing and refinement. Health Psychol 2011;30(3):342–50.
7. Zeh P, Sandhu HK, Cannaby AM, Sturt JA. The impact of culturally competent diabetes care interventions for improving diabetes-related outcomes in ethnic minority groups: a systematic review. Diabet Med 2012;4:1464–9.
8. Like RC. Educating clinicians about cultural competence and disparities in health and health care. J Contin Educ Health Prof 2011;31(3):196–206 Summer.
9. Beavers FP, Satiani B. Diversity does not equal disparity: how cultural competence can overcome. J Vasc Surg 2010;51(4 suppl):1S–3S.
10. Betancourt JR, Green AR, Carrillo JE, Ananee-Firempong II O. Defining cultural competence: a practical framework for addressing racial/ethnic disparities in health and health care. Public Health Rep 2003;118(4):293–302.
11. United States Department of Health of Human Services. HHS action plan to reduce racial and ethnic health disparities: a nation free of disparities in health and health care. Washington, DC: United States Department of Health and Human Services; 2011. Available from: http://www.minorityhealth.hhs.gov/npha/files/Plans/HHS/HHSPlancomplete.pdf.
12. American Public Health Association. Mission statement. http://tftp://www.apha.org/about/gov/execboard/executiveboard/missionmission.htm.
13. U.S. Cancer Statistics Working Group. United States cancer statistics: 1999-2007 incidence and mortality Web-based report. Atlanta (GA): Department of Health and Human Services, Centers for Disease Control and Prevention, and National Cancer Institute; 2010. Available at: http://www.cdc.gov/.
14. Johnell O, Kanius IA. An estimate of the worldwide prevalence of disability associated with osteoporotic fractures. Osteoporos Int 2006;17:1726–33.
15. Waterman BR, Belmont PJ, Schoenfeld AJ. Low back pain in the United States: incidence and risk factors for presentation in the emergency setting. Spine J 2012;12(1):63–70.
16. Docking R, Fleming J, Brayne C, et al. Epidemiology of back pain in older adults: prevalence and risk factors for back pain onset. Rheumatology 2011;50(9):1645–53.
17. Christensen MG, Delle Morgan DR. Job analysis of chiropractic. Greeley, CO: National Board of Chiropractic Examiners.
18. Christensen MG, Kerkhoff D, Kollasch MW. Job analysis of chiropractic 2000. Greeley, CO: National Board of Chiropractic Examiners; 2000.
19. Christensen MG, Kollasch MW. Job analysis of chiropractic 2005. Greeley, CO: National Board of Chiropractic Examiners; 2005.
20. Christensen MG, Kollasch MW, Hyland JK. Practice analysis of chiropractic 2010. Greeley, CO: National Board of Chiropractic Examiners; 2010. Available from: http://www.nbcch.org/publication/practice.
21. US Census Bureau. United States summary: general population characteristics. Table 3. Race and Hispanic origin: 1990. Available from: http://www.census.gov/prod/cen1990/cl1 cp-1-1p.pdf.
22. US Census Bureau. Census 2000. Table DP-1. Profile of general demographic characteristics: 2000. Available from: http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_00_SF1-DP1&prodType=table.
23. Humes KR, Jones NA, Ramirez RR. Overview of race and Hispanic origin: 2010. US Census Bureau. Available from: http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf.
24. Roberts JH, Sanders T, Wass V. Students’ perceptions of race, ethnicity and culture at two UK medical schools: a qualitative study. Med Educ 2008;42:45–52.
25. Kaufman JS, Cooper RS. Commentary: considerations for use of racial/ethnic classification in etiologic research. Am J Epidemiol 2001;154(4):291–8.
26. Frank B, MacLeod A. Beyond the ‘four Ds of multiculturalism’: taking difference into account in medical education. Med Educ 2005;39:1178–9.
27. Roberts JH, Sanders T, Mann K, Wass V. Institutional marginalisation and student resistance: barriers to learning
about culture, race and ethnicity. Adv in Health Sci Educ 2010;15:559–71.

28. Beagan BL. Teaching social and cultural awareness to medical students: “It’s all nice to talk about it in theory, but ultimately it makes no difference”. Acad Med 2003;78(6):605–14.

29. Hafferty FW. Beyond curriculum reform: confronting medicine’s hidden curriculum. Acad Med 1998;73(4):403–7.

30. Winkelman M. Culture and health: applying medical anthropology. San Francisco, CA: Jossey-Bass; 2009. p. 5.

31. Hunter WJ. Cultural competency in health care providers’ ethical decision-making and moral reasoning: implications for reducing racial and ethnic health disparities for diverse populations. Cambridge, UK: ProQuest; 2008. p. 12–3.

32. Antai-Otong D. Nurse-client communication: a life span approach. Sudbury, Mass: Jones and Bartlett Publishers; 2007. p. 176–7.

33. Carter J, Marion S. Pharmacy in public health: basics and beyond. Bethesda, MD: American Society of Health-System Pharmacists; 2010. p. 138–9.

34. Major KA, Susan TG. Cultural competency for public administrators. Armonk, N.Y.: M.E. Sharpe; 2012. p. 64–5.

35. American Chiropractic Association. Code of ethics. http://www.acatoday.org/content_css.cfm?CID=719 retrieved on October 8, 2012.

36. Epstein RM, Franks P, Fiscella K, Shields CG, Meldrum SC, Kravitz RL, et al. Measuring patient-centered communication in patient-physician consultations: theoretical and practical issues. Soc Sci Med 2005;61(7):1516–28.

37. Stewart M, Brown JB, Donner A, McWhinney IR, Oates J, Weston WW, et al. The impact of patient-centered care on outcomes. J Fam Pract 2000;49(9):796–804.

38. Salimbene S. What language does your patient hurt in?. Diversity Resources: Amherset MA; 2005.

39. Scharff DP, Mathews KJ, Jackson P, Hoffsuemmer J, Martin E, Edwards D. More than Tuskegee: understanding mistrust about research participation. J Health Care Poor Underserved 2010; 21(3):879–97.

40. Fadiman A. The spirit catches you and you fall down: a Hmong child, her American doctors, and the collision of two cultures. New York, NY: Farrar, Straus, and Giroux; 1997.

41. Elois A, Fowkes W. A teaching framework for cross-cultural health care—application in family practice. West J Med 1983;139(6):934–8.

42. Stone J, Moskowitz GB. Non-conscious bias in medical decision making: what can be done to reduce it? Med Educ 2011;45(8):768–76.

43. Kirmayer L. Multicultural medicine and the politics of recognition. J Med Philos 2011;36(4):410–23.