

ACCP WHITE PAPER

Cultural Competency in Health Care and Its Implications for Pharmacy Part 3A: Emphasis on Pharmacy Education, Curriculums, and Future Directions

American College of Clinical Pharmacy

Mary Beth O'Connell,* Magaly Rodriguez de Bittner, Therese Poirier, Lamis R. Karaoui, Margarita Echeverri, Aleda M.H. Chen, Shin-Yu Lee, Deepti Vyas, Christine K. O'Neil, and Anita N. Jackson

Culture influences patients' beliefs and behaviors toward health and illness. As the U.S. population becomes more diverse, a critical need exists for pharmacy education to incorporate patient-centered culturally sensitive health care knowledge and skills into the curriculum. Nursing was the first profession to incorporate this type of learning and training into its curriculums, followed by medicine. Pharmacy has also made great progress to revise curriculums, but inconsistency exists in depth, breadth, and methods across pharmacy colleges. This article addresses important aspects of pharmacy education such as curriculum development, incorporation of educational innovations and techniques into the teaching of patient-centered culturally sensitive health care across the curriculum from didactic to experiential learning, assessment tools, and global education. A preliminary model curriculum with objectives and examples of teaching methods is proposed. Future directions in pharmacy education, teaching and learning scholarship, postgraduate education, licensure, and continuing education are also presented.

KEY WORDS assessment, cultural competency, cultural sensitivity, curriculum, pharmacy education. (Pharmacotherapy 2013;33(12):e347–e367) doi: 10.1002/phar.1353

Culture is a critical element in most facets of life, especially in health care behaviors, decision making, and approaches to wellness and healing.

This document finalizes work begun by the ACCP Cultural Competence Task Force: Mary Beth O'Connell, Magaly Rodriguez de Bittner, Therese Poirier, Lamis R. Karaoui, Margarita Echeverri, Aleda M.H. Chen, Shin-Yu Lee, Deepti Vyas, Christine K. O'Neil, and Anita N. Jackson. Approved by the American College of Clinical Pharmacy Board of Regents on February 6, 2013. Final version received July 16, 2013.

Address reprint requests to the American College of Clinical Pharmacy, 13000 W. 87th St. Parkway, Suite 100, Lenexa, KS 66215; e-mail: accp@accp.com; or download from <http://www.accp.com>.

*Address for correspondence: Mary Beth O'Connell, Eugene Applebaum College of Pharmacy and Health Sciences, Pharmacy Practice Department, 259 Mack Ave., Suite 2190, Detroit, MI 48201-2427; e-mail: mboconnell@wayne.edu.

© 2013 Pharmacotherapy Publications, Inc.

Health care practitioners need to understand their own beliefs and the beliefs of their patients to provide individualized care and achieve the best health care outcomes in a patient-centered culturally sensitive manner.^{1–3} To assist practitioners and student pharmacists in becoming more culturally sensitive, the American College of Clinical Pharmacy (ACCP) created a Task Force on Cultural Competency that proposed a series of articles on culture and pharmacy. The first article provided definitions and described health disparities and policies related to culture or culturally incompetent care, as well as models and frameworks for becoming more culturally competent as a provider and health care system.¹ The second article discussed the seven components of a culturally competent practitioner and health care system and included information on health literacy, cultural competency assessment tools, and cultural competency resources.²

This third article, which focuses on culture and education, is divided into two parts. The first part provides background and history about the importance of cultural education and training for health care students, educators, and practitioners; proposes a template for a patient-centered culturally sensitive health care didactic and experiential curriculum, together with examples of successful cultural education and training programs; and discusses future needs in education and research regarding patient-centered culturally sensitive health care. Although the article primarily focuses on student pharmacists and academic centers, the information is applicable to other health care disciplines, preceptors, practitioners, and practice sites. The second part focuses on culture and education policy, procedures, and climates.

Terminology

As the area of cultural competency continues to develop, so does the terminology as well as the philosophies, frameworks, and techniques. Current thought suggests the goal for health care professionals should be cultural sensitivity because no one will likely be competent in all cultures.⁴ Because learning and practice occur with other cultures, the term *cross-cultural education* is used.⁵ In addition, with the focus of health care on patients, the most recent term is *patient-centered culturally sensitive health care*.³ These terms are used somewhat synonymously throughout this article. In addition, *cultural humility* is the new term used to describe the need for practitioners to include this area in their lifelong learning.⁶

Background/Need

Significant health disparities exist between various groups across the United States,⁷ underscoring the need for culturally sensitive health care practitioners.^{8, 9} Cultural sensitivity is an essential characteristic for health care practitioners because of its effect on improving health outcomes and decreasing health disparities.¹⁰ Patients from a variety of cultural groups have traditionally viewed health care practitioners as unaware of or lacking consideration for their cultural differences.¹¹ Patients want health care providers who value and respect their cultural views and beliefs, communicate effectively, and take an individualistic approach to their health.^{9, 12–21} Patients have greater satisfaction with health care practitioners who are motivated

to learn about other cultures as well as with those who demonstrate knowledge, skills, and attitudes regarding cultural sensitivity.^{10, 22, 23}

Various organizations have called for health care providers and students to understand the intersectional framework of diversity and multiculturalism to improve the health outcomes of the populations served.^{8, 11, 17, 24–28} To fulfill these recommendations, educators and practitioners must educate and train students and themselves to become culturally competent and sensitive.

Although pharmacy students, educators, and practitioners perceive the importance of cultural awareness,^{29–31} many do not fully realize the implications of culture on outcomes and the pharmacist–patient relationship, nor do they provide culturally sensitive care.^{32–35} Little information is available about the cultural competency of pharmacy faculty. Most faculty members (94%) believe cultural competency/sensitivity should be integrated in the required curriculum.³⁶ The ability of faculty to teach and practice patient-centered culturally sensitive care is unknown.

History

Although pharmacy is making progress in cultural education, further advances can come from reviewing the progress of other professions, especially nursing and medicine, in an effort to make patient-centered culturally sensitive curriculum revisions and develop knowledge and skills assessments. The history of nursing and medicine are briefly reviewed here, followed by that of pharmacy.

Nursing

Nursing professionals were the pioneers in cultural competency education. Beginning in the 1950s, terms such as *transcultural nursing* emerged, and training and theories were included in curriculums.³⁷ The Campinha-Bacote model for cultural competence³³ (i.e., cultural awareness, cultural knowledge, cultural skill, cultural encounter, and cultural desire) and the transcultural nursing model for areas unique to patients from various cultures (i.e., communication, space, social orientation, time, environmental control, and biologic variations) were published and disseminated.³⁸

As early as 1983, the National League of Nursing discussed race, ethnicity, culture, and diversity criteria for nursing curriculums.³⁹ The first cultural diversity guideline for nursing education

was proposed in 1986 by the American Nurses Association.⁴⁰ In 2006, five cultural competencies were included in the American Association of Colleges of Nursing (AACN) requirements for a baccalaureate nursing degree.⁴¹ They pertained to applying cultural knowledge to various situations, evaluating and using cultural competency care data, minimizing health disparities, engaging in social justice advocacy, and becoming a lifelong learner in cultural competency. The AACN also developed six core cultural competency guidelines for graduate nursing education.⁴² These competencies pertain to sociocultural factors and care, cultural knowledge, leadership in cultural competency health services, health disparities and social justice, continuous cultural competency development, and cultural competency scholarship. To facilitate the achievements of these competencies, the AACN developed toolkits for undergraduate and graduate nursing education that are comprehensive and extensively referenced.^{38, 42} Nursing college accreditation bodies began requiring cultural competency curriculum components as early as 1977,³⁹ and cultural knowledge is now included in the nursing licensing examination. In addition, since 1988, nurses have had the opportunity to become certified in transcultural nursing. Some specialized nursing organizations and journals are devoted to cultural competency.

Medicine

Although cultural competency in medical education was described as early as 1970,⁴³ medical accreditation standards in cultural competency were created by the Liaison Committee on Medical Education (LCME) in 1999 to enhance the adoption of cultural competency training in all medical schools and residencies.^{43, 44} Today, these standards include requirements for assessment and documentation. The cultural competency standards included understanding the impact of culture on health and illness (ED-21) as well as recognizing and addressing gender and cultural biases (ED-22). The LCME now also has a standard related to ensuring a diverse faculty, student body, and academic community (IS-16).

Other agencies such as the Accreditation Council of Graduate Medical Education (ACGME) established guidelines in this area. Cultural competency also was added to board examinations by the National Board of Medical Education. The ACGME, which sets standards for residencies, also adopted culture-related competencies in

1999 regarding cultural differences.⁴⁵ These are now expanded to include knowledge of the interrelationships between culture and health.

Policies outside academic accreditation boards have also influenced the uptake of cultural competency for doctors.⁴⁶ The American Medical Association passed a policy to encourage cultural competency electives to increase cultural awareness and acceptance between provider and patient.⁴⁵ Some states require practicing physicians to receive cultural competency training.^{45, 46} Many online resources provide continuing medical education related to cultural competency.⁴⁶

Medical organizations assisted colleges with these new curricular requirements. Around 1999, the American Medical Student Association encouraged colleges to implement cultural competency education. The Association of American Medical Colleges (AAMC) published the *Cultural Competence Compendium*, an extensive resource book on culture and health in 1999,⁴⁷ and it added cultural competency items to the annual medical school questionnaire to measure curriculum changes. In 2005, the AAMC also created the Tool for Assessing Cultural Competence Training (TACCT) to assist schools in planning their cultural competency curriculums.⁴⁵

Pharmacy

The pharmacy profession began recognizing the need for culturally sensitive health care practitioners in the early 1990s, but the movement toward incorporating cultural sensitivity into the curriculum did not gain momentum until almost 10 years later. Although greater emphasis on cultural competency/sensitivity has been incorporated into pharmacy curriculums in recent years, the extent of cultural sensitivity content within pharmacy schools' curriculums remains difficult to elucidate and is inconsistent. Information on content depth and breadth, as well as on impact on learning and practice of such programs, is just beginning to be published. The first pharmacy textbook on cultural competency was published in 2008.⁴⁸

Many developments in pharmacy education have resulted from gap analyses, standards, and educators passionate about the topic. About 20 years ago, 50% of pharmacy schools did not include minority health issues in their curriculum,⁴⁹ and educational standards were just beginning to include cultural competency. The 1994 and subsequent revisions of the AACP Center for the Advancement of Pharmaceutical Education

(CAPE) outcomes included cultural competency, which resulted in educators' examinations of curricular efforts related to cultural competency.^{35, 50}

Some of the more recent educational efforts to address cultural competency/sensitivity are the result of incorporating cultural competency into the 2006 and subsequent American Council on Pharmaceutical Education (ACPE) guidelines for accreditation standards in professional degree programs.⁵¹ The ACPE standards and guidelines highlight student learning areas focused on "cultural competence, health literacy and health disparities and competencies needed to work as a member of or on an interprofessional team" in standard 9, activities that "promote health improvement, wellness, and disease prevention" in standard 12, and assessing whether colleges are selecting students who can "practice in culturally diverse environments" in standard 17. Several components of cultural competency are also recommended for the science foundation of the curriculum. Curricular efforts related to cultural competency have resulted in some improvement in cultural competency/sensitivity among student pharmacists.^{29-31, 52-63}

Right now, an "ideal" and standardized pharmacy curriculum is needed that is consistently used in all colleges of pharmacy to prepare student pharmacists to deliver patient-centered culturally sensitive health care. Furthermore, because the cultural competency of practicing pharmacists is documented as needing improvement,^{64, 65} programs for improving their patient-centered culturally sensitive health care skills are also required. The next section begins to address student pharmacist curricular needs, with some aspects transferable to pharmacist education.

Pharmacy Curriculum

Curricular Needs

To meet the growing needs of more diverse patients and recent revisions in accreditation standards,⁵¹ pharmacy educators are faced with the educational challenge of addressing curricular needs regarding cultural sensitivity. In a 2007 survey to assess cultural competency content in pharmacy curriculums, only 61% of respondents stated cultural competency was mentioned in their college's mission statement.³⁶ About 51% of respondents had made recent curricular changes to introduce cultural competency, and 49% planned to implement new topics or courses on

cultural competency. Most respondents (94%) perceived the need to add topics to required courses, but only 43% perceived the need to add a specific required course. In 2007, an AACP-Pharmaceutical Services Support Center Task Force identified gaps in addressing the needs of diverse populations including the underserved.⁶⁶ Less than 10% of pharmacy colleges' websites mentioned addressing the need to serve diverse communities. The task force provided recommendations for a curricular framework for meeting the needs of culturally diverse communities⁶⁷ and identified grant programs supporting initiatives for underserved populations.⁶⁶ In 2009, the AACP Curricular Change Summit recommended incorporating cultural competency throughout the curriculum to engage students in a variety of situations, not just in experiential education or elective courses.⁶⁸ Given that achieving cultural sensitivity is an ongoing process that will not be achieved by students at graduation, the AACP summit also recommended developing training for practitioners.

With progress in cultural education, new teaching and learning theories and frameworks are being developed that could be integrated in pharmacy curriculums. Some educators advocate for a critical cultural curriculum, which goes beyond the cultural competency didactic curriculum to more actively engage students in resolving health care disparities and contains more social justice aspects.⁵ Furthermore, the use of engagement activities is suggested to prevent stereotypes from developing from well-intended cultural competency education programs.⁶⁹ An intersectional framework also has been proposed for this type of education.⁷⁰ The intersectional framework suggests that cultural education and training need to include the overlap of many cultures within one person as well as the influences of socioeconomic, education, sexuality, disability, disparities, marginalization, and politics on actions, health outcomes, and health delivery. Because many pharmacy curriculums and pharmacy student organizations use service learning for underserved populations, improvements in foundational knowledge and frameworks might be needed to improve the skills and outcomes from these activities.

Special Patient Populations

As curriculums, programs, and systems begin to advance patient-centered culturally sensitive health care, some educators advocate for a cur-

riculum that goes beyond the initial focus on race, ethnicity, and underserved populations. Examples of additional topics needed include health disparities, social justice, disabilities, religion, and sexual orientation.

Disability as a diverse culture, with a critical examination of the barriers to health care and health disparities experienced by people with a disability, should be incorporated into the cultural competency framework.⁷¹ Competencies that are critical for providing effective health care to patients with disabilities include using receptive and expressive communication skills, being adaptable, avoiding a one-size-fits-all approach, understanding values, emphasizing interdependence versus independence, and encouraging self-advocacy skills.^{71, 72} Descriptions of curriculums incorporating patients with disabilities are limited. An example is a role-reversal exercise (students participated as patients with deafness, and the community volunteers who were deaf served as the medical providers) to increase awareness of communication challenges with hearing deficits and understand the importance of interpreters.⁷³

Religion and spirituality should also be incorporated into the cultural sensitivity pharmacy curriculum. Attention to religion during patient care aids in the development of culturally sensitive and assessable services.⁷⁴ Students could become more culturally sensitive if they were motivated to study world religions; organize, attend, or participate in a religious event; or attend religious services, lectures, or celebrations of spiritual traditions different from their own. A total of 80% of student leaders responding to a questionnaire believed they would benefit from a course, seminar, or presentation about the spiritual aspects of patient care, and an equal number were interested in addressing the spiritual aspects of patient care in case studies and readings.⁷⁵ A clear majority (91%) were interested in addressing the beliefs and practices of religious groups as they affect the provision of health care to that group. Creighton University exposes their faculty, staff, and students to Jesuit/Ignatian values, which promote *cura personalis*, or care of the whole person, and highlight the importance of reflection.⁷⁶

Sexual orientation and gender identification should also be incorporated into the cultural sensitivity pharmacy curriculum. Proposed methods for including lesbian, gay, bisexual, transgender, and/or questioning sexual identity (LGBTQ) cultures and health issues in curriculums include exposure to LGBTQ individuals and the use of

standardized patient scenarios, didactic lectures and seminars, guest panel discussions, poster presentations, and student reflections.⁷⁷ The LGBTQ curricular content and primary literature analysis that focus on human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) and other sexually transmitted infections as the predominant or exclusive topic of study are not reflective of the overall health care needs of the LGBTQ community and can reinforce stereotypes of sexual risk behavior.^{77, 78} Pharmacy faculty should consider adding LGBTQ case scenarios and curricular content to examine and increase student awareness of other health concerns in addition to HIV/AIDS and the sexually transmitted illnesses that affect the LGBTQ community (e.g., smoking, alcohol and substance abuse, obesity, physical abuse, depression, suicide) and issues related to their health care (e.g., appropriate terminology and communications, reasons for avoiding health care providers, consequences of culturally incompetent care).⁷⁹

Pharmacy Cultural Sensitivity Education and Training Examples

Although cultural competency/sensitivity education and training is not universal or standardized across pharmacy curriculums, many colleges integrate cultural sensitivity in their curriculum, which results in new theories, frameworks, assessment tools, and educational resources. Although some schools have implemented isolated courses on cultural sensitivity, others are working on an integrated curriculum along the entire academic program. The following information reviews a selection of diverse experiences on implementing cultural sensitivity education in required and elective courses, experiential and service learning, an integrated curriculum, and interprofessional learning experiences. These and other publications also include a variety of instructional strategies to teach cultural sensitivity concepts and skills (Table 1).^{29, 30, 52–55, 57–60, 62, 67, 73, 80–93}

Patient-centered culturally sensitive health care should be incorporated into required coursework and experiential training. At the University of Minnesota, students read, discuss, and write reflections about the book *The Spirit Catches You and You Fall Down*, which describes health care misunderstandings, barriers, and other issues related to a Hmong family.⁵⁹ Students also participate in activities to explore concepts of ethnocentrism, prejudice and stereotype, and patients'

Table 1. Instructional Strategies and Resources for Cultural Competency/Sensitivity Curriculum^a

Active-learning exercises: UCSF toolbox ⁸⁴
Alternative practice clinic visit ⁶⁰
BaFa' BaFa' cultural simulation game ^{59, 86}
Case studies and video case studies ^{29, 30, 52-55, 57-59, 62, 73, 80, 82, 83}
Complementary and alternative healer interview ⁶⁰
Cultural book clubs and readings of articles ^{30, 59, 60, 87}
Cultural competency seminar series ⁵⁸
Cultural forum or panels ^{29, 54, 58, 71, 80, 81}
Global experience ⁸⁰
Human difference paper or presentation (i.e., cultural group different from one's own) ^{29, 55}
Objective structured clinical examination (OSCE) ⁸⁹
Online case-based course ^{85, 88}
Patient and practitioner community interview of person with cultural profile different from one's own ⁵⁴
Patient empathy modeling exercise ⁸⁰
Reflective writings ^{29, 30, 52-55, 57-60, 62, 73, 80-83}
Role-reversal exercise ^{60, 73}
Service-learning diversity experience ^{30, 53}
Service-learning or experiential rotations in Federally Qualified Health Center ^{30, 57, 80, 90}
Spanish curriculum ^{82, 91}
Team-based learning ^{29, 85}
Videos on interpreter use ^{52, 55}
Virtual patients and standardized patients ^{85, 92}

UCSF = University of California at San Francisco.

^aExamples from pharmacy, medicine, and nursing; all strategies can be applied to interprofessional learning.

health beliefs and disease explanatory models. As part of the activities, students participate in the BaFa' BaFa' cultural simulation game to role-play specific cultures, view and discuss the *Worlds Apart* video series about cross-cultural conflicts in health care, and participate in cultural book clubs. At Southern Illinois University Edwardsville, a team-based learning approach was used in a required cultural competency and health literacy course to address differences in health beliefs among various sociocultural groups including various religious and ethnic groups, individuals with disabilities, and individuals with HIV/AIDS.²⁹ At the University of Toledo, cultural competency activities exist in many required pharmacy courses to increase awareness of and confidence in addressing cultural diversity.⁵⁵ The students view videos consisting of case studies, participate in case study discussions, complete reflective writings, and write papers after participating in a community project involving interactions with culturally diverse groups.

Elective courses can provide greater depth of understanding regarding an area of cultural sensitivity. At the University of California at San Francisco, an 8-hour elective course led to student learning in various areas of cultural competency.⁵² The course consisted of didactic lectures,

class discussions, and various class activities, many of which are listed in their toolkit.⁸⁴ At South University, a cultural competency elective course enhanced student learning through case studies, a cross-cultural simulation game, classroom discussions, community interviews, readings, and reflective writings.⁵⁴ At Wayne State University, a 2-credit elective course focused on race, ethnicity, religion, physical disability, sexual orientation, complementary and alternative forms of healing, and various chronic illness cultures.⁶³ The course included different readings and movies, followed by small group discussions and reflections; a field trip to a Native American-integrated clinic incorporating Western medicine with Native American therapies such as herbs, sweat lodge, and medicine man care; and in-class interactive presentations by people from diverse cultures. The students also role-played patients from different cultures and identified important cultural issues affecting health care decisions and outcomes, and they interviewed alternative healing practitioners, with their findings presented to the class.

Experiential and service learning are other venues to provide greater depth and develop skills. At Butler University, a multifaceted elective curricular strategy to enhance Spanish language and culture included five curricular elements: three medical Spanish courses including a service-learning course, a Spanish-language immersion trip to Mexico, and an advanced pharmacy practice experience (APPE) at a predominantly Spanish-speaking patient clinic site. Experiential learning was perceived to be more effective than the didactic courses in developing language skills.⁸² At the University of Cincinnati, pharmacy students rotated at a charitable pharmacy as part of a service-learning elective designed to develop awareness and communication skills while interacting with the underserved population, which resulted in a positive change in students' attitudes and perceptions.⁵³ At the University of Missouri-Kansas City, a 6-week cultural competency series was part of the introductory pharmacy practice experiences (IPPEs); students discussed patient care scenarios, role-played communication models, participated in religious forums, counseled patients in Medicare Part D and assistance programs for medications, and gave presentations on health disparities.⁵⁸ Assessment results showed positive changes in students' attitudes toward the need for cultural competency. At Drake University during APPEs, pharmacy students were exposed to diverse

patient populations at the community access pharmacy.³⁰ This experience included students interviewing Hispanic patients, evaluating non-traditional medicine practices in a Hispanic community, visiting a Mexican grocery store, serving on a health care team at a homeless shelter, and participating in an HIV/AIDS clinic experience.

Integrating cultural sensitivity across the curriculum and along the entire academic program allows the connection between didactic knowledge and the application of the concepts and skills. Drake University implemented cultural competency active-learning experiences, including a service-learning experience at a free clinic or community health center, in the first 3 years of the pharmacy program.³⁰ During the fourth year of the curriculum, students were required to complete one diversity APPE. Xavier University of Louisiana College of Pharmacy and Tulane University School of Medicine implemented a cross-institutional curriculum in cultural competency across all four professional years.⁸⁵ The curriculum included lectures and a discussion of the video series *Unnatural Causes* (year 1); readings of the Institute of Medicine and Agency for Healthcare Research and Quality reports and completion of the Department of Health and Human Resources online training *Unified Health Communications* (year 2); and team-based learning sessions on interpreters for health care, generational diversity, complementary and alternative medicine, generics, disparities in pharmaceutical therapy, and LGBT patient care (years 3 and 4). Assessment strategies included pretests and posttests, essays, and research reports; standardized patients; role playing; examinations; and learning logs.

Learning and providing patient-centered culturally sensitive health care also can be achieved with interprofessional learning experiences. At Howard University, an interprofessional course included written assignments such as self-heritage assessments and journal reflections, together with discussions on case- and literature-based sessions.⁶² Students also viewed the *Worlds Apart* videos, role-played, practiced interviewing strategies, and had a community immersion experience. At the University of Cincinnati, an interprofessional course was designed using patient case discussions.⁸³ Students were assigned to interprofessional teams to develop interpersonal and small group skills. The student teams discussed cases addressing various cultural topics including Puerto Rican, Lao, Appalachian, and Chinese cultures; Muslim, African-American,

Native American, and Jewish faith; and use of complementary and alternative medicine. The course also included guest speakers and reflection exercises. The IDEA model was developed to achieve interprofessional learning and cultural competency when students from different health care professions communicated and worked together.⁹⁴ The "I" in this acronym stands for interaction, which refers to a student's need for the chance to work directly with individuals from other health professions and develop an appreciation for the other disciplines regarding their training and methods of patient care. The "D" stands for data, which refers to a student's need for information about other health professions including training, roles, and specific information about the person in that role. The "E" stands for expertise, which refers to the ability to communicate clearly and effectively with others regarding the values and processes of patient care associated with one's own profession. Finally, the "A" stands for attention (i.e., self-reflection on one's biases, prejudices, and assumptions about other health care professions). At Howard University, an interdisciplinary course with pharmacy, nursing, and allied health students showed positive aspects on student learning and skills.⁶²

Model Curriculum

Many diverse methods, tools, and assessments of achieving patient-centered culturally sensitive health care skills exist, but a consistent core knowledge and skills curriculum and required cultural competencies do not. To achieve the knowledge and skills required for health care practitioners, a model curriculum adopted by all pharmacy colleges is recommended to ensure consistent cultural competencies of students and practicing pharmacists. A model curriculum would facilitate the implementation of cultural sensitivity within a curriculum and some standardization between different academic programs.⁶³ However, each college or school would need to adapt the model curriculum to its specific cultural needs, limitations, priorities, and resources.

Creating a model curriculum is a long process that involves not only defining the competencies students should demonstrate at graduation, mapping these competencies against the different modules recommended, and breaking the modules into small lessons, but also developing learning objectives, instructional strategies, and assessment and evaluation techniques for each

learning objective. A comprehensive literature review yielded 581 education and learning outcome statements defining knowledge, skills, attitudes, and other attributes related to cultural competency.⁹⁵ After using various content analysis techniques, 102 educational and learning outcome statements were identified, which could be used as a preliminary list to define the core cultural competencies for a model curriculum.⁹⁶ Working with various cultural communities within a college's geographic area or state can help develop the patient-centered culturally sensitive health care curriculum.⁴

Because a formal process to define the model curriculum is still under development by AACP, the intent of this article is to present some suggested objectives (Table 2)^{30, 67, 71, 73, 97} gathered from the pharmacy, nursing, and medicine literature reviewed. Next is a curriculum template incorporating cultural awareness, knowledge, attitudes, skills, and values that would be developed and integrated across the curriculum in didactic and elective coursework and experiential training. Training also could include interprofessional education activities and, when possible, an international global educational experience.

Table 2. Preliminary List of Learning Objectives for a Cultural Competency/Sensitivity Curriculum^a

Culture concepts

- Justify the need for culturally sensitive health care
- Define culture, characteristics of a culture, race, ethnicity, spirituality, religion, cultural diversity, cultural competency, cultural sensitivity, cultural humility, cross-cultural care, and culturally sensitive health care
- Differentiate stereotypes from generalizations
- Identify and resolve bias, prejudice, and discrimination
- Compare and contrast the various models of cultural competency including critical culturalism and the intersectional framework

Patient aspects and health disparities

- Explain differences between health disparities and health care disparities
- Summarize U.S. demographic changes and their impact on health care in the United States
- Provide evidence of health and health care disparities and patient outcomes
- Explain the effects of cultural sensitivity in patients' health outcomes
- Identify health beliefs and perceptions for various culture groups, and explain how these beliefs affect health care for various sociocultural groups
- Explain the health care needs and health disparities of diverse populations including different characteristics such as race, ethnicity, religion/spirituality, socioeconomic status, sexual orientation, limited English proficiency, low health literacy, chronic illnesses, and disabilities

Practitioner aspects

- Identify the role of health care practitioners in providing care to diverse populations
- Demonstrate empathy toward patients with different socioeconomic challenges
- Determine patients' process for decision making, causes and preferred treatment of illness, and family dynamics
- Assess own biases, stereotypes, and level of cultural competence/sensitivity
- Evaluate the literature in health disparities, cultural competency, and outcomes of patient-centered culturally sensitive health care

Patient-centered culturally sensitive health care

- Explain the rationale of requiring training in cultural sensitivity
- Use culturally sensitive patient-interviewing models
- Use various methods and resources to improve communications with patients from various cultures and backgrounds, especially those with sight and hearing limitations, low health literacy, and/or English as second language
- Identify patients who would benefit from an interpreter
- Work efficiently with an interpreter
- Compare and contrast approaches for eliciting health beliefs and a spiritual history
- Use appropriate communication strategies to provide culturally sensitive counseling to patients from various cultures and backgrounds
- Increase awareness of communication barriers for patients who are deaf or hard of hearing
- Evaluate the efficacy and safety of alternative forms of healing
- Work with communities to improve cultural sensitivity/diversity policies and health care

Health system aspects

- Discuss the health care safety net/systems available for people from different cultures
 - Explain the role of government and policies with respect to patient-centered culturally sensitive health care
 - Measure adherence to regulations, standards, and accreditations rules and regulations
 - Evaluate health system missions, policies, and procedures related to patient-centered culturally sensitive health care
 - Assess cultural sensitivity knowledge and skills of workforce and preceptors
 - Develop and evaluate programs to improve cultural sensitivity in the workforce
 - Evaluate policies for employing and retaining a culturally diverse workforce
-

^aCompilation of ideas from different references^{30, 67, 71, 73, 97} and author additions based on experience and literature review.

Active-learning strategies and assessments of successful performance should also be included.

First and Second Years

The goals during the early part of the curriculum would be to develop cultural awareness, desire, and knowledge. Students need to first understand the different definitions of cultures and explanatory models of illness.⁸⁸ Instruction on knowledge of cultures needs to be created that breaks cultural stereotypes and uses knowledge as generalizations to guide individualized interviewing and care. Discussions of health disparities should include topics like racism and prejudice.⁹⁶ Development of cultural humility should also be included.⁶

Content areas recommended in the curriculum could be addressed as a stand-alone course, part of an introductory pharmacy practice course, a communication course, or part of the pharmacy practice skills laboratory course. With didactic courses and laboratory experiences, active-learning exercises are recommended. These exercises could include role playing, reflection papers, and case study discussions. Literature and media about cultural beliefs, health practices, and health care delivery can be used. The IPPE requirements and service-learning courses could be used to address the cultural competency goals, including the development of skills and encounters. A seminar series embedded in a course and or IPPE is also an option. Elective courses, service learning, and a seminar series offer opportunities for inter-professional cultural competency learning.

Third Year

The goals toward the end of the didactic curriculum are to develop cultural sensitivity, patient-centered focus, and skills. During the third year, coursework should be offered that introduces working with culturally diverse groups. The pharmacotherapy courses should discuss patient data and cases when culture affects the treatment plans. Cultural sensitivity electives could be offered to allow greater depth, breadth, or focus on various aspects of patient-centered culturally sensitive care. For example, Spanish for health care professionals could be offered or an in-depth exploration of diverse cultures with reflections, interviews, role playing, and patient encounters. Advanced interprofessional activities focused on care for patients from diverse cultures could be used.

Fourth Year

The goal during the last year is to develop opportunities for cultural encounters with diverse patients including patients with disabilities; different race, ethnicity, and religion backgrounds; and different sexual orientations and gender identities. Students should have at least one APPE that is a diversity experience. This experience can be providing care to the underserved in federally qualified health centers and other clinical sites. Experiences in community centers or clinics are also options. A global experience could be a suitable diversity experience. These experiences offer opportunities for patient-centered culturally sensitive inter-professional learning.

Assessment

To determine the impact of cultural sensitivity education and training, assessments should be conducted with respect to the student body, curriculum, education, and training. Assessments influence college and student commitment to learning and can be both formative and summative. Assessments also can identify gaps and areas for improvement within a program, student, and practitioner. Ideally, assessments of student learning should include both self- and performance-based evaluations, beginning when the student enters the program and then throughout the 4 years of learning and training. For each cohort of incoming students, students should create a profile that includes their perceived levels of cultural sensitivity.⁶³ These profiles allow the identification of training needs for each specific cohort of students and reflect changes in cultural sensitivity training in kindergarten to high school education. According to the specific cohort, priorities can be established for addressing identified cultural sensitivity needs within that cohort's academic program, together with the development of targeted educational interventions for specific subgroups of students to address particular issues. Assessments of cultural sensitivity outcomes should be part of social and administrative sciences educational outcomes⁹⁸ as well as within the other pharmacy education domains.

Although the field of cultural competency/sensitivity assessment is growing, with some tools already validated in pharmacy or other health professions (Table 3),^{29, 37, 43, 96, 99–114} validated tools to measure competency and sensitivity achievements are still limited.⁹⁹ The AAMC

developed¹¹³ and revised¹¹⁴ the TACCT to help medical colleges integrate cultural competency content in the curriculum. This tool could serve as a resource for curricular assessment within pharmacy schools. Most currently available cultural competency assessment tools focus on self-assessment of knowledge and attitudes, with few tools for skills assessment. Furthermore, some tools focus only on knowledge regarding one or two cultural issues, usually race and ethnicity, instead of the full spectrum of cultures to which health care practitioners deliver care in the real world. Culture clinical case vignettes with subsequent cultural competency questions can be used to assess knowledge and skills.¹¹⁵ Objective structured clinical examinations (OSCEs) are useful to assess patient-centered culturally sensitive health care skills, with some articles providing recommendations for creation and use.^{88, 89} Assessment tools, validated or not, can be adapted to fit the specific needs of a cultural competency activity, course, experiential experience, curriculum, and program, but validated tools used across similar or varied programs facilitate the comparison of outcomes.

Global Education

Global health is becoming more important for education, research, and practice. Global health focuses on transnational health issues, determinants, and solutions; emphasizes the equity in health among nations for all people; promotes interdisciplinary collaboration; and embraces population-based prevention with individual-level clinical care.¹¹⁶ Factors contributing to the need for global health include increasing international travel, growing global markets, climate change, urbanization, rapid transmission of infectious diseases, and emerging multinational epidemics.¹¹⁷

Pharmacists can play a vital role in promoting health and shaping global health. However, pharmacy students and practitioners must be knowledgeable and competent in travel medicine; immigrant health; emerging and nonemerging diseases; social determinants of health; international nutrition, water, and sanitization; global economics, governance, trade, and politics; and global environmental changes, human rights, global responsibilities, public health models, natural and war disaster relief programs, health care system disparities, and cost consciousness.^{117, 118} Therefore, pharmacy faculty must educate and train a sufficient number of new and practicing

pharmacists and other support staff to build such a capable pharmacy workforce.^{119, 120} Academic administrators and faculty will need to support and allocate appropriate resources to global education, collaborations, and exchange programs.¹²¹ Policy is beginning to influence global health education. The ACPE guideline 14.6 states:

The college or school may offer elective advanced pharmacy practice experiences outside the United States and its territories and possessions, provided that they support the development of the competencies required of the graduate, and the college or school implements policies and procedures to ensure the quality of the site(s) and preceptor(s).⁵¹

The International Pharmaceutical Federation has partnered with the United Nations Educational, Scientific and Cultural Organization and the World Health Organization to establish a Global Pharmacy Education Task Force with an action plan for promoting comprehensive education development and achievement of competencies in global pharmacy practice.¹²² The AACP Global Pharmacy Education Special Interest Group was established to provide a forum for the exchange of information, ideas, and programs that pertain to pharmacy education, research, and health care on a global basis. This group has created a website with a list of organizations involved in global health and pharmacy education to facilitate the incorporation of global health into college curriculums.¹²³ They also drafted student learning objectives (Table 4) and proposed activities and assignments for a global APPE.¹²⁴ The AACP is a founding member of the Global Alliance for Pharmacy Education, established in 2011.¹²⁵ Member organizations include national associations of pharmacy educators, regional networks of pharmacy schools, and other important stakeholders committed to maximizing the contributions of pharmacy education to advance pharmacy practice globally.

Coursework and experiential education can achieve knowledge and competencies in global health. A systematic literature review of the effects of international health electives on medical students showed that these experiences strengthen students' existing skills, stimulate clinical reasoning, increase knowledge of tropical diseases and immigrant health, increase appreciation of cross-cultural communication and provision of care to the underserved, and influence career choices.¹²⁶ Examples of pharmacy educational outcomes from courses and experiential activities are begin-

Table 3. Examples of Various Cultural Competency Education and Training Assessment Tools for Various Learner Groups^{37, 99}

Name (reference)	Goals	Audience	Description	Validation
Curriculum assessment				
Tool for Assessing Cultural Competence Training (TACCT) ^{113, 114}	Assess the integration of cultural competency content in the curriculum; compare different programs	Curriculum developers	Self-report 42 items (first version 67 items) 6 domains (first version 5 domains): rationale, context, and definition; key aspects of cultural competence; understanding the impact of stereotyping on medical decision making; health disparities and factors influencing health; and cross-cultural clinical skills	Not validated
Practitioners and administrators	Evaluate learning after a continuing education program	Practitioners, administrators	Self-report Pretest then posttest of knowledge and skills 29 items (yes/no or Likert scale) Sections: Demographics (5 items) Knowledge (19 items) Skills (5 items) Self-assessment 79 items (4-point Likert scales) Five subscales: knowledge of community; personal involvement, resources, and linkages; staffing, service delivery, and practice; organizational policies and procedures; and reaching out to communities	Not validated
Cultural Competence Self-Assessment Questionnaire (CCSAQ)	Assess cross-cultural strengths and weaknesses in child- and family-serving agencies	Two versions: one for direct service providers, the other for administrators	Self-assessment 20 items Cultural knowledge (6 items) Cultural sensitivity (2 items) Cultural skill (12 items)	Validated in nurses
Cultural Capacity Scale ¹⁰⁷	Measure practitioner cultural competence	Practitioners	Self-assessment 30 items 5-point Likert scale (strongly disagree to strongly agree) Three subscales: general (cognitive) attitudes about racial diversity, affective attitudes about racial diversity, and general attitudes regarding women's equity issues 20 items for each of the two vignettes (re: Anglo and African-American patients; additional vignettes may be added)	
Quick Discrimination Index (QDI) ⁹⁹		Counseling psychology; also intended for general use	Three factors: nursing care-patient interaction; cultural health behavior; and cultural health attitudes and beliefs	
Culture Attitude Scale, or Ethnic Attitude Scale (CAS/EAS) ⁹⁹		Nursing	40 items 4-point Likert scale (very inaccurate to very accurate) One general multicultural competency factor and four specific factors: multicultural counseling skills; multicultural awareness; multicultural counseling relationship; and multicultural counseling knowledge	
Multicultural Counseling Inventory (MCI) ¹⁰⁸	Developed for use in counseling psychology	Practitioners		

(continued)

Table 3. (continued)

Name (reference)	Goals	Audience	Description	Validation
Multicultural Awareness, Knowledge, and Skills Survey (MAKSS and MAKSS-CE-R) ⁹⁸		Counseling psychology	33 items 4-point Likert scales (very limited to very aware; very limited to very good; strongly disagree to strongly agree) Three subscales: awareness-revised; knowledge-revised; and skills-revised	
Cross-Cultural Counseling Inventory (CCCI and CCCI-R) ⁹⁹		Counseling psychology	Scored by an observer 20 items 6-point Likert scale (strongly disagree to strongly agree) Three factors: cross-cultural counseling skill; sociopolitical awareness; and cultural sensitivity 32 items	
Multicultural Counseling Knowledge and Awareness Scale, formerly the Multicultural Counseling Awareness Scale-form B (MCKAS) ⁹⁹		Counseling psychology	7-point Likert scale (not at all true to totally true) Two subscales: knowledge and awareness	
Practitioners and students				
Tucker-Culturally Sensitive Health Care Inventory (T-CSHCI) Provider Form ¹⁰⁹	Determine whether provider practices patient-centered culturally sensitive health care benchmarked to what diverse patients stated as important items	Practitioners, students	Self-report 141 items (Likert scale) Sections: Patient centeredness (23 items) Interpersonal skills (7 items) Disrespect/disempowerment (8 items) Competence (9 items) Cultural knowledge/responsiveness (6 items)	Validated in medical students
Clinical Cultural Competency Questionnaire (CCCCQ) ¹⁰⁰	Measure the perceived level of pharmacy students' knowledge, skills, attitudes, and encounters in cross-cultural environments	Practitioners, students	Self-assessment 63 items (Likert scale = Not at all, a little, somewhat, quite a bit, very) Knowledge (16 items) Skills (15 items) Attitudes (20 items) Encounters (12 items)	Validated in pharmacy students

(continued)

Table 3. (continued)

Name (reference)	Goals	Audience	Description	Validation
California Brief Multicultural Competency Scale (CBMCS) ⁹⁶	Multicultural competence in mental health services	Practitioners, students	Self-assessment 22 items (Likert scale = strongly agree, agree, disagree, strongly disagree) Diversity (8 items) Knowledge (7 items) Racial dynamics (3 items) Barriers (4 items) Note: These are the results of the validation with pharmacy students	Validated with mental health providers and pharmacy students
Students				
Blueprint for Integration of Cultural Competence in the Curriculum (BICCC) ^{101, 102}	Assess students about integrating cultural competence in the curriculum (modification of TACCT survey)	Students	Self-report 31 items (Likert scale = quite often, sometimes, never) Knowledge (20 items) Key concepts (4 items) Health disparities issues (9 items) Clinical decision making (4 items) Health disparities research (3 items) Skill (5 items) Attitudinal development (6 items)	Validated in nursing students
Cross-Cultural Care Survey ¹¹⁰	Preparedness to provide cross-cultural care	Students	Self-assessment Training Preparedness Cross-cultural experiences Skillfulness Resources Specialty preparedness Demographics	Validated in medical students
Multicultural Assessment Questionnaire ⁴³	Evaluate achievement of stage 4 of Bennett model (acceptance, importance)	Students	Self-assessment 16 items (Likert scale) Knowledge (6 items) Skills (6 items) Attitude (4 items)	Evaluated in medical students
Inventory for Assessing the Process of Cultural Competence Among Healthcare Professionals – Revised (IAPCC-R) ^{29, 103}	Assess student learning according to the Campinha-Bacote model (cultural incompetence, cultural awareness, cultural competence, cultural proficiency)	Students	Self-assessment 25 items (Likert scale = proficient, competent, aware, incompetent) Cultural awareness (5 items) Cultural knowledge (5 items) Cultural skill (5 items) Cultural encounters (5 items) Cultural desire (5 items) Overall cultural competence score	Validated in nursing students Used in pharmacy students

(continued)

Table 3. (continued)

Name (reference)	Goals	Audience	Description	Validation
Transcultural Self-Efficacy Tool (TSET) ^{104, 105}	Measure changes in confidence in transcultural care after education	Students	Self-assessment 83 items (rating scale = 1 not confident to 10 totally confident) 15–20 min Cognitive (25 items) Practical (28 items) Affective (30 items) Factors Knowledge and understanding (25 items) Interview (22 items) Awareness, acceptance, and appreciation (12 items) Recognition (10 items)	Validated in nursing students
Cultural Self-efficacy Scale (CSES) ¹¹¹	Plan better curriculums and health services	Practitioners, students	26 items 5-point Likert scale (very little confidence to quite a lot of confidence) Three sections: knowledge of cultural concepts; knowledge of cultural patterns; and skills in performing transcultural nursing functions	Validated in nursing students
Cross-Cultural Adaptability Inventory (CCAI) ¹¹²	Measure ability to adapt to diverse cultures; determine cross-cultural effectiveness and areas for improvement	Practitioners, students interested in studying or working abroad with diverse cultures	50 items 6-point Likert scale (definitely not true to definitely true) Four subscales: emotional resilience; flexibility/openness, perceptual acuity; and personal autonomy	

ning to appear. A pharmacy elective in the Peruvian rain forest increased students' appreciation of herbal therapy and shamanic healing and influenced practice, especially in choosing alternative forms of healing, educating about herbal therapies, and caring for patients with English as their second language.¹²⁷ Three pharmacy colleges are collaborating to provide an APPE in Belize.^{128, 129} Medical mission-directed studies and APPEs are also great educational experiences for exposing student pharmacists to global health and direct patient care in underserved areas of the world, resulting in professional and personal transformation.^{130–134} Residency training is even beginning to offer global health experiences. The Purdue Pharmacy Kenya Program, in collaboration with Academic Model for Providing Access to Healthcare, offers a global health residency to American and Kenyan pharmacists.^{124, 135} The University of Pittsburgh has established an advanced practice residency with an emphasis on underserved care and global health in which the resident helps select the country or region where he or she will be involved.¹³⁶

Global health experiences require more resources and preparation than the usual education and training experiences.¹³⁷ To achieve successful global health pharmacy education in international experiences, the home institution delineates the initial goals of the global experience program, supports its mission, and works with the host institution to finalize.^{118, 135, 137} Additional logistics exist, such as student accommodations, passports, visas, extra paperwork, and liability and health insurance. Preparing and training students for studying abroad can begin up to 1 year before departure. Comprehensive student orientations need to be held before departure to address the paperwork, cultural competency, and site and country attributes. Prior learning of the culture, customs, history, and standards of the country to be visited, as well as some basic communications in the host country's language, assist in immersion experiences. Students should be taught mechanisms for dealing with stress, conflict, and homesickness and for maximizing tolerance. Preventive health measures, especially country-specific pre-travel vaccination and/or chemoprophylaxis, need to be conducted before travel. During placement, assigned faculty supervisors from the home and host institutions keep in regular contact, briefing with the students and coordinating their activities. Students are encouraged to keep a reflective journal. On return to the home institution, super-

Table 4. American Association of Colleges of Pharmacy Global Education Special Interest Group: Suggested Student Learning Objectives for a Global Advanced Pharmacy Practice Experience¹²⁴

Student pharmacists participating in a global APPE should be able to

1. Communicate and interact with patients with the highest level of cultural competence.
2. Compare medication distribution systems: management of drug supply, dispensing procedures, and medication records.
3. Discuss the most common diseases in the country visited (disease state knowledge).
4. Perform drug therapy evaluations: Synthesize patient history with laboratory and physical examination; review treatment options with complementary and alternative medicines; assess treatment outcomes.
5. Perform patient education and counseling.
6. Develop educational materials for patients.
7. Develop case studies.
8. Prepare and deliver formal oral and written presentations.
9. Contrast the health care system at the APPE site to the U.S. health care system.
10. Describe how culture affects health and health care provided at the APPE site.
11. Discuss various factors that affect pharmacy practice in the country of the APPE site.
12. Develop a country portfolio to include information on pharmacy services, the health care system, public health, the economy, politics, religious beliefs, and so forth.

APPE = advanced pharmacy practice experience.

visors and students debrief about their global experience, review areas of improvement, and restructure the program.

Pharmacist, Preceptor, and Continuing Education Programs

Health professional standards are beginning to require cultural sensitivity education and training for practitioners.^{8, 26} Postgraduate patient-centered culturally sensitive health care education and training can be at the following levels: institutional or organizational, services and programs, curricular or educational, or individual or professional. The education and training can be done as interprofessional, organizational, or health systems programs. Future programs in patient-centered culturally sensitive health care should be a “spiral curriculum” in which the learning curriculum facilitates learners to revisit and reexamine fundamental ideas over time and return to the basic concepts to build on them, according to new experiences and understanding.¹³⁸

Future Directions

Standardized Evidence- and Competency-Based Curriculums

Pharmacy colleges are following different approaches when building their patient-centered culturally sensitive health care curriculums. Not all colleges are using active-learning strategies or assessing the achievement of competencies. Therefore, a standardized curriculum using a competency-based approach that student pharmacists can demonstrate by graduation is needed.¹⁰⁰ More evidence currently is needed to determine

the best teaching and learning practices for achieving these competencies.

Comprehensive Integrated Curriculums

The need for patient-centered culturally sensitive health care curriculums to be woven into all 4 years of the pharmacy curriculum is expressly evident, based on curricular outcomes included by both ACPE and AACP CAPE educational outcomes.^{51, 95}

Interprofessional and Global Cultural Experiences

Interprofessional care is expanding as the norm for patient care; thus cultural sensitivity should be included within interprofessional education and training. The growth and expansion of global and international health care needs and programs creates a need to emphasize this type of education and training within pharmacy curriculums.

Patient-Centered Culturally Sensitive Health Care Curriculum Responsive to Changes

Teaching and learning methods, as well as societal health care needs, change with time. Multiculturalism, polyculturalism, multilingualism, multi-racialism, religious pluralism, multisexuality, political coalitions, and so forth, are issues that continue to increase and evolve in the United States and worldwide. Changes in population; best educational practices for health care provision, policy, and reimbursement; and societal expectations of health care providers will need to be integrated in curricular revisions. Assessments of what incoming students know and perceive about diversity and

cultural sensitivity, as well as their experiences, beliefs, and expectations, should be conducted to adapt patient-centered culturally sensitive health care content and training to the needs of these upcoming students and to those of patients.

Use of Active Learning and Information Technology

Patient-centered culturally sensitive health care is not a topic to “learn,” but a topic to “live.” Using the virtual environment, mobile devices, social systems, e-learning, online communities, wikis, and blogs brings enormous opportunities for rich and interactive resources to create a live curriculum that encourages dialogue and constructive learning. A dynamic curriculum should be built on engaged learning in which participants are engaged not only with the learning process, but also with the object of study, the contexts, and the human conditions that are so relevant when becoming culturally competent, instead of decontextualized and rote learning.¹³⁹ The new curriculum should not only be taught in the classroom or using simulations, but also in the neighborhood, places of worship, hospitals, pharmacies, and community organizations. A curriculum that uses new educational technologies to foster discussion and group work, critical thinking, communication skills, and behavioral change is needed to accomplish the goal of creating a patient-centered culturally sensitive health care provider.

Patient-Centered Culturally Sensitive Health Care Education Materials

The exchange of ideas and tools is crucial to addressing and ensuring patient-centered culturally sensitive health care competencies within educational institutions. To assist with consistency across pharmacy curriculums, basic instructional modules and active-learning activities can be developed and shared with everyone. Activities can be captured by best practices at the various colleges, especially those with extensive cultural sensitivity programs.

Lifelong Continuous Professional Development Using a Spiral Curriculum

Patient-centered culturally sensitive health care education and training are lifelong journeys for faculty, preceptors, staff, and pharmacists. Health care delivery models and clinical practice

are constantly changing; the education and training for culturally sensitive providers therefore need to adapt alongside these changes.

Patient-Centered Culturally Sensitive Health Care Certificate Program

To establish basic standards in cultural sensitivity for college graduates, an initial cultural sensitivity certificate that requires didactic and instructive materials, simulation training, self-reflection, and an application opportunity could be created. Thereafter, annually or biannually, participants should attend educational or training activities related to current topics on patient-centered culturally sensitive health care to maintain an active certificate. This would not only help achieve basic competencies, but also incentivize individuals to stay up to date. Institutional centers such as Ohio State University’s Multicultural Center and St. Louis University’s Center for Interprofessional Education and Research are prime areas to disseminate training programs for patient-centered culturally sensitive health care and serve as research resource centers.

Comprehensive Competency-Based Assessment Tools

Assessment is a vital part of any academic pursuit and can be performed at the individual course, curricular and pedagogical, and campus-wide levels. Assessments of patient-centered culturally sensitive health care learning and delivery should be conducted throughout one’s student and professional life to facilitate the continuous reevaluation of skills and patient outcomes and to identify areas requiring further growth. Different assessment tools exist from various health care professions, but many of them focus on knowledge, awareness, and self-assessment versus skills and actual evaluation of patient care provision experiences and outcomes. Better assessments in this area still need to be developed.

Exploration of Cultural Sensitivity Evaluation on Pharmacy Licensure Examinations

Medicine licensure examinations already include cultural competency. Because many consider patient-centered culturally sensitive health care an appropriate means to improve patient encounters, satisfaction, and health outcomes, including it on licensure examinations seems logical. Because patient-centered culturally sensitive

health care is more related to a skill set, OSCE-like examinations may be required to assess this competency.

Greater Faculty, Staff, and Preceptor Cultural Sensitivity

Faculty, staff, and preceptors are role models to students and therefore should also teach and practice patient-centered culturally sensitive health care. To educate students in cultural sensitivity, faculty, staff, and preceptors themselves need to be culturally sensitive. Not all current pharmacy faculty and preceptors have received formal education and or training on patient-centered culturally sensitive health care; therefore, programs and training for this cohort are needed as well. Health care employers and colleges could collaborate in creating online training programs for their employees. The creation of college or institutional multicultural centers could aid with interprofessional cultural sensitivity skill development and assessment.

Need for Institutional Commitment and Support

For the implementation of patient-centered culturally sensitive health care strategies and curricular reform to be successful, the support of administrators and institutional leaders is critical. In many instances, the inclusion of patient-centered culturally sensitive health care in courses and/or curriculums is the single effort of a dedicated faculty member and/or staff who at times serves as the only advocate for incorporating cultural competency into the curriculum. Strategic planning at various levels (department, school, and institution) should consider patient-centered culturally sensitive health care, as the University of Maryland, Baltimore, has done.¹⁴⁰

More Research on Patient-Centered Culturally Sensitive Health Care Education and Health Care Outcomes

Research that focuses on educational, patient, and health systems outcomes related to patient-centered culturally sensitive health care is vital to justify the time invested and associated costs with this type of teaching and learning, especially in the development and procurement of training resources and in the recruitment and retention of necessary faculty. Proposed areas of future research are evaluations of patient-centered culturally sensitive health care teaching

and learning at all academic levels and assessments of the impact of culturally sensitive health care delivery on patient satisfaction, health literacy, medication adherence, continuity of care, health outcomes, health disparities, and health care expenditures. By exploring quantitative outcomes such as health care cost savings in relation to patient-centered culturally sensitive health care, the urgency and priority of integrating patient-centered culturally sensitive health care in the curriculum may be further elevated, and the need for adequately trained faculty, staff, and preceptors highlighted. Additional benefits of demonstrating cost savings could result in more possibilities for grant funding by larger organizations and institutions. Researchers focused on evaluating the impact of patient-centered culturally sensitive health care training and care on patient outcomes are also needed.

Conclusion

With the changing demographics of the U.S. population, the increasing global health needs within the United States and throughout the world, and the value of pharmacists in these practice areas, the need exists for improved patient-centered culturally sensitive health care curriculums for both student pharmacists and practicing pharmacists. Pharmacy colleges incorporate this type of education and training to various extents from minimal didactic coverage into integrated curriculums across didactic and experiential opportunities. Some colleges incorporate active and service learning and assess knowledge and skills competencies in patient-centered culturally sensitive health care. The inconsistencies of education and training in this area call for more standards, a model curriculum that is based on competencies, and research. Postgraduate education, training, and assessment in patient-centered culturally sensitive health care are also required. The growth and expansion of interprofessional learning and global and international programs create excellent education and training opportunities. A great need exists to assess the impact of including patient-centered culturally sensitive health care in the curriculum and of learning the most effective ways to teach and assess educational outcomes and competencies.

References

1. American College of Clinical Pharmacy; O'Connell MB, Korner EJ, Rickles NM, Sias JJ. Cultural competence in health care and its implications for pharmacy. Part 1. Overview of

- key concepts in multicultural health care. *Pharmacotherapy* 2007;27:1062–79.
2. American College of Clinical Pharmacy; O'Connell MB, Rickles NM, Sias JJ, Korner EJ. Cultural competency in health care and its implications for pharmacy. Part 2. Emphasis on pharmacy systems and practice. *Pharmacotherapy* 2009;29:14e–34e.
 3. Mirsu-Paun A, Tucker CM, Armenteros EM. Family interaction patterns and their association with family support among women with breast cancer. *Cancer Nurs* 2012;35:E11–21.
 4. Kamaka ML. Designing a cultural competency curriculum: asking the stakeholders. *Hawaii Med J* 2010;69:31–4.
 5. Reitmanova S. Cross-cultural undergraduate medical education in North America: theoretical concepts and educational approaches. *Teach Learn Med* 2011;23:197–203.
 6. Butler PD, Swift M, Kothari S, et al. Integrating cultural competency and humility training into clinical clerkships: surgery as a model. *J Surg Educ* 2011;68:222–30.
 7. Agency for Healthcare Research and Quality. National health-care disparities report. 2011:1–256. Available from www.ahrq.gov/research/findings/nhqrdr/nhqrdr11/. Accessed May 30, 2013.
 8. Smedley BD, Stith AY, Nelson AR, eds., Institute of Medicine Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. *Unequal treatment: confronting racial and ethnic disparities in health care*. Washington, DC: National Academies Press, 2003:1–781.
 9. Office of the General Counsel. U.S. Commission on Civil Rights. Native American health care disparities briefing executive summary. 2004:1–54. Available from www.law.umaryland.edu/marshall/usccr/documents/nativeamericanhealthcare-dis.pdf. Accessed May 30, 2013.
 10. Brach C, Fraser I. Can cultural competency reduce racial and ethnic health disparities? A review and conceptual model. *Med Care Res Rev* 2000;57(Suppl 1):181–217.
 11. Smedley BD, Stith AY, Colburn L, Evans CH. The right thing to do, the smart thing to do. *Enhancing diversity in the health professions*. Washington, DC: National Academies Press, 2001:1–366.
 12. Garrett PW, Dickson HG, Whelan AK, Roberto F. What do non-English-speaking patients value in acute care? Cultural competency from the patient's perspective: a qualitative study. *Ethn Health* 2008;13:479–96.
 13. Tucker CM, Herman KC, Pedersen TR, Higley B, Montrichard M, Ivery P. Cultural sensitivity in physician-patient relationships: perspectives of an ethnically diverse sample of low-income primary care patients. *Med Care* 2003;41:859–70.
 14. zThe Bureau of Primary Health Care HRaSA, The Office of Minority Health, Department of Health and Human Services, The Center for Substance Abuse Prevention, and Substance Abuse and Mental Health Services Administration. Cultural competence for health care professionals working with African-American communities: theory and practice. 1998:1–167. Available from www.hawaii.edu/hiv-aids/Cultural%20Competence%20for%20Health%20Care%20Professionals%20Working%20with%20African%20American%20Communities.pdf. Accessed May 30, 2013.
 15. U.S. Department of Health and Human Services. Office of Minority Health. Pathways to integrated health care, strategies for African American communities and organizations. 2011:1–36. Available from <http://minorityhealth.hhs.gov/Assets/pdf/Checked/1/PathwaystoIntegratedHealthCareStrategiesforAfricanAmericans.pdf>. Accessed May 30, 2013.
 16. Carrier B, Alaska Air Medical Curriculum Update Task Force, Alaska Section of Injury Prevention and Emergency Medical Services. Chapter 12. Diversity and cultural issues in Alaska. In: Alaska air medical escort training manual, 4th ed. Juneau: Department of Health and Social Services, Division of Public Health, Section of Injury Prevention and EMS, 2006:247–66.
 17. U.S. Department of Health and Human Services. Office of Minority Health. National standards for culturally and linguistically appropriate services in health care. Washington, DC: U.S. Department of Health and Human Services, 2001:1–139. Available from minorityhealth.hhs.gov/assets/pdf/checked/finalreport.pdf. Accessed May 30, 2013.
 18. U.S. Department of Health and Human Services HRaSA. Bureau of Primary Health Care, Office of Minority Health, Substance Abuse and Mental Health Services Administration. Quality health services for Hispanics: the cultural competency component. 2001:1–123. Available from www.hrsa.gov/CulturalCompetence/servicesforhispanics.pdf. Accessed May 31, 2013.
 19. National Alliance for Hispanic Health. Through our eyes: creating a healthy future. 2009:1–16. Available from www.hispanichealth.org/assets/general/toe2009.pdf. Accessed May 31, 2013.
 20. The Latino Coalition. Strategies for improving Latino health-care in America. 2006:1–65. Available from www.borderhealth.org/files/res_642.pdf. Accessed May 31, 2013.
 21. Napoles-Springer AM, Santoyo J, Houston K, Perez-Stable EJ, Stewart AL. Patients' perceptions of cultural factors affecting the quality of their medical encounters. *Health Expect* 2005;8:4–17.
 22. Paez KA, Allen JK, Beach MC, Carson KA, Cooper LA. Physician cultural competence and patient ratings of the patient-physician relationship. *J Gen Intern Med* 2009;24:495–8.
 23. Beach MC, Price EG, Gary TL, et al. Cultural competence: a systematic review of health care provider educational interventions. *Med Care* 2005;43:356–73.
 24. U.S. Department of Health and Human Services. *Healthy People 2010: understanding and improving health*, 2nd ed. Washington, DC: U.S. Government Printing Office, 2000:1–76. Available from <http://healthypeople.gov/2010/document/tableofcontents.htm#under>. Accessed May 30, 2013.
 25. U.S. Department of Health and Human Services Office of Disease Prevention and Health Promotion. *Healthy People 2020*. 2010:1–6. Available from http://healthypeople.gov/2020/TopicsObjectives2020/pdfs/HP2020_brochure_with_LHI_508.pdf. Accessed May 30, 2013.
 26. Joint Commission for the Accreditation of Hospitals. *Accreditation manual for hospitals, Vol. 1*. Oakbrook Terrace, IL: Joint Commission for Accreditation of Hospitals and Organizations, 1995.
 27. Institute of Medicine of the National Academies. In the nation's compelling interest: ensuring diversity in the health-care workforce. Washington, DC: National Academies Press, 2004:1–409. Available from www.nap.edu/catalog.php?record_id=10885. Accessed May 30, 2013.
 28. Institute of Medicine of the National Academies. Committee on Quality of Health Care in America. *Crossing the quality chasm: a new health system for the 21st century*. 2001:1–360. Available from www.iom.edu/Reports/2001/Crossing-the-Quality-Chasm-A-New-Health-System-for-the-21st-Century.aspx. Accessed May 30, 2013.
 29. Poirier TI, Butler LM, Devraj R, Gupchup GV, Santanello C, Lynch JC. A cultural competency course for pharmacy students. *Am J Pharm Educ* 2009;73:81.
 30. Haack S, Phillips C. Teaching cultural competency through a pharmacy skills and applications course series. *Am J Pharm Educ* 2012;76:27.
 31. Durand C, Abel C, Silva M, Desilets A. An elective course in cultural competency. *Curr Pharm Teach Learn* 2012;4:102–8.
 32. Dogra N, Giordano J, France N. Cultural diversity teaching and issues of uncertainty: the findings of a qualitative study. *BMC Med Educ* 2007;7:8.
 33. Campinha-Bacote J. The process of cultural competence in the delivery of healthcare services: a model of care. *J Transcult Nurs* 2002;13:181–4, discussion 200–1.
 34. Agrawal M, Sause R. Need for cultural sensitivity in pharmacy practice: New York City pharmacy student perceptions. *J Pharm Teach* 1999;7:31–46.
 35. Brown CM, Doan QD. Pharmacy students' perceptions about the need for multicultural education. *Am J Pharm Educ* 1998;62:310–5.
 36. Onyoni EM, Ives TJ. Assessing implementation of cultural competency content in the curricula of colleges of pharmacy

- in the United States and Canada. *Am J Pharm Educ* 2007;71:24.
37. Allen J. Improving cross-cultural care and antiracism in nursing education: a literature review. *Nurse Educ Today* 2010;30:314–20.
 38. American Association of Colleges of Nursing. Tool kit of resources for cultural education for baccalaureate nurses. 2008:1–29. Available from www.aacn.nche.edu/education-resources/toolkit.pdf. Accessed May 30, 2013.
 39. DeSantis LA, Lipson JG. Brief history of inclusion of content on culture in nursing education. *J Transcult Nurs* 2007;18:75–95.
 40. Hunter JL, Krantz S. Constructivism in cultural competence education. *J Nurs Educ* 2010;49:207–14.
 41. Calvillo E, Clark L, Ballantyne JE, Pacquiao D, Purnell LD, Villarruel AM. Cultural competency in baccalaureate nursing education. *J Transcult Nurs* 2009;20:137–45.
 42. Clark L, Calvillo E, Dela Cruz F, et al. Cultural competencies for graduate nursing education. *J Prof Nurs* 2011;27:133–9.
 43. Crandall SJ, George G, Marion GS, Davis S. Applying theory to the design of cultural competency training for medical students: a case study. *Acad Med* 2003;78:588–94.
 44. Donini-Lenhoff FG, Hedrick HL. Increasing awareness and implementation of cultural competence principles in health professions education. *J Allied Health* 2000;29:241–5.
 45. Dogra N, Betancourt JR, Park ER, Sprague-Martinez L. The relationship between drivers and policy in the implementation of cultural competency training in health care. *J Natl Med Assoc* 2009;101:127–33.
 46. Like RC. Educating clinicians about cultural competence and disparities in health and health care. *J Contin Educ Health Prof* 2011;31:196–206.
 47. American Medical Association. Cultural competence compendium. Chicago, IL: American Medical Association, 1999:1–447.
 48. Halbur KV, Halbur DA. Essentials of cultural competence in pharmacy practice. Washington, DC: American Pharmacists Association, 2008. 1–341.
 49. Rodriguez de Bittner M, Monsanto H. Minority health issues contents in pharmacy curricula. *J Am Pharm Educ* 1992;56:78s–9s.
 50. Sause RB, Galizia VJ. An undergraduate research project: multicultural aspects of pharmacy practice. *Am J Pharm Educ* 1996;60:173–9.
 51. Accreditation Council for Pharmacy Education. Accreditation standards and guidelines for the professional program in pharmacy leading to the doctor of pharmacy degree, version 2.0. 2011:1–91. Available from www.acpe-accredit.org/pdf/FinalS2007Guidelines2.0.pdf. Accessed May 30, 2013.
 52. Assemi M, Cullander C, Hudmon KS. Implementation and evaluation of cultural competency training for pharmacy students. *Ann Pharmacother* 2004;38:781–6.
 53. Brown B, Heaton PC, Wall A. A service-learning elective to promote enhanced understanding of civic, cultural, and social issues and health disparities in pharmacy. *Am J Pharm Educ* 2007;71:9.
 54. Evans E. An elective course in cultural competence for healthcare professionals. *Am J Pharm Educ* 2006;70:55.
 55. Muzumdar JM, Holiday-Goodman M, Black C, Powers M. Cultural competence knowledge and confidence after classroom activities. *Am J Pharm Educ* 2010;74:150.
 56. White-Means S, Zhiyong D, Hufstader M, Brown LT. Cultural competency, race, and skin tone bias among pharmacy, nursing, and medical students: implications for addressing health disparities. *Med Care Res Rev* 2009;66:436–55.
 57. Haack S. Engaging pharmacy students with diverse patient populations to improve cultural competence. *Am J Pharm Educ* 2008;72:124.
 58. Vyas D, Caligiuri FJ. Reinforcing cultural competency concepts during introductory pharmacy practice experiences. *Am J Pharm Educ* 2010;74:129.
 59. Westberg SM, Bumgardner MA, Lind PR. Enhancing cultural competency in a college of pharmacy curriculum. *Am J Pharm Educ* 2005;69:Article 82.
 60. O'Connell MB. Patients' perspectives on health, illness, and culture. American Association of Colleges of Pharmacy Annual Meeting 2009;73:Article 57 (143).
 61. Heffernan L, Kalvaitis D, Segaran P, Fisher E. The cross-cultural field excursion initiative: an education approach to promote cultural competency in student pharmacists. *Curr Pharm Teach Learn* 2013;5:155–66.
 62. Hawala-Druy S, Hill MH. Interdisciplinary: cultural competency and cultural congruent education for millennials in health professions. *Nurse Educ Today* 2012;32:772–8.
 63. Echeverri M, Brookover C, Kennedy K. Assessing pharmacy students' self-perception of cultural competence. *J Health Care Poor Underserved* 2013;24:65–93.
 64. Shah BK, Lonie JM. Assess the cultural competency of practicing community pharmacists: a pilot study. *Curr Pharm Teach Learn* 2012;4:240–6.
 65. Shaya FT, Gbarayor CM. The case for cultural competence in health professions education. *Am J Pharm Educ* 2006;70:Article 124.
 66. Zweber A, Roche V, Assemi M, Conry J, Shane-McWhorter L, Sorensen T. Curriculum recommendations of the AACP-PSSC task force on caring for the underserved. *Am J Pharm Educ* 2008;72:Article 53.
 67. American Association of Colleges of Pharmacy; Allan J, Barwick TA, Cashman S, et al. Caring for the underserved. A delineation of educational outcomes organized within the clinical prevention and population health curriculum framework for health professions. 2006:1–10. Available from www.aacp.org/resources/education/Documents/FINAL%20Curriculum%20Framework%203.09.pdf. Accessed May 30, 2013.
 68. Jungnickel P, Kelley K, Hammer D, Haines S, Marlowe J. Addressing competencies for the future in the professional curriculum. *Am J Pharm Educ* 2009;73:Article 156.
 69. Wear D, Kumagai AK, Varley J, Zarconi J. Cultural competency 2.0: exploring the concept of "difference" in engagement with the other. *Acad Med* 2012;87:752–8.
 70. Sears KP. Improving cultural competence education; the utility of an intersectional framework. *Med Educ* 2012;46:545–51.
 71. Smith WT, Roth JJ, Okoro O, Kimberlin C, Odedina FT. Disability in cultural competency pharmacy education. *Am J Pharm Educ* 2011;75:26.
 72. Edey GE, Robey KL. Considering the culture of disability in cultural competence education. *Acad Med* 2005;80:706–12.
 73. Mathews JL, Parkhill AL, Schlehofer DA, Starr MJ, Barnett S. Role-reversal exercise with Deaf Strong Hospital to teach communication competency and cultural awareness. *Am J Pharm Educ* 2011;75:53.
 74. Whitley B. Religious competence as cultural competence. *Transcult Psychiatry* 2012;49:245–6.
 75. Cooper BA, Brock TP, Ives TI. The spiritual aspect of patient care in the curricula of colleges of pharmacy. *Am J Pharm Educ* 2003;67:Article 44.
 76. Creighton University School of Pharmacy and Health Sciences. IHS spirituality resources: respecting diversity. Reflections from students, faculty, and staff. Available from spahp2.creighton.edu/spirituality/Reflections.aspx. Accessed May 30, 2013.
 77. Brondani MA, Paterson R. Teaching lesbian, gay, bisexual, and transgender issues in dental education: a multipurpose method. *J Dent Educ* 2011;75:1354–61.
 78. Snyder JE. Trend analysis of medical publications about LGBT persons: 1950–2007. *J Homosex* 2011;58:164–88.
 79. U.S. Department of Health and Human Services. Healthy People 2020: lesbian, gay, bisexual, and transgender health. Available from www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=25. Accessed May 30, 2013.
 80. Assemi M, Shane-McWhorter L, Scott DR, Chen JT, Seaba HH. Caring for the underserved: exemplars in teaching. *Am J Pharm Educ* 2009;73:18.
 81. Roche VF, Jones RM, Hinman CE, Seoldo N. A service-learning elective in Native American culture, health and professional practice. *Am J Pharm Educ* 2007;71:129.

82. VanTyle WK, Kennedy G, Vance MA, Hancock B. A Spanish language and culture initiative for a doctor of pharmacy curriculum. *Am J Pharm Educ* 2011;75:4.
83. Brown B, Warren NS, Brehm B, et al. The design and evaluation of an interprofessional elective course with a cultural competence component. *J Allied Health* 2008;37:e316–37.
84. Mutha S, Allen C, Welch M. Toward culturally competent care: a toolbox for teaching communication strategies. San Francisco, CA: Center for the Health Professions, 2002. 1–170.
85. Echeverri M, Kennedy K. Assessing cultural competency: a strategy to connect the dots. American Association of Colleges of Pharmacy Institute. Cultural competency: beyond race and gender. Herndon, VA. 2011:1–8. Available from www.aacp.org/meetingsandevents/pastmeetings/2011Institute/Documents/AssessingCulturalCompetency.pdf. Accessed May 30, 2013.
86. O'Connor BB, Rockney R, Alario A. BaFa BaFa: a cross-cultural simulation experience for medical educators and trainees. *Med Educ* 2002;36:1102.
87. Halloran L. Teaching transcultural nursing through literature. *J Nurs Educ* 2009;48:523–8.
88. Betancourt JR, Cervantes MC. Cross-cultural medical education in the United States: key principles and experiences. *Kaohsiung J Med Sci* 2009;25:471–8.
89. Hamilton J. Intercultural competence in medical education—essential to acquire, difficult to assess. *Med Teach* 2009;31:862–5.
90. Amerson R. The impact of service-learning on cultural competence. *Nurs Educ Perspect* 2010;31:18–22.
91. Chatterjee A, Talwalkar JS. An innovative medical Spanish curriculum for resident doctors. *Med Educ* 2012;46:521–2.
92. Fors UG, Muntean V, Botezatu M, Zary N. Cross-cultural use and development of virtual patients. *Med Teach* 2009;31:732–8.
93. Smith BD, Silk K. Cultural competence clinic: an online, interactive, simulation for working effectively with Arab American Muslim patients. *Acad Psychiatry* 2011;35:312–6.
94. Pecukonis E, Doyle O, Bliss DL. Reducing barriers to interprofessional training: promoting interprofessional cultural competence. *J Interprof Care* 2008;22:417–28.
95. Echeverri M. Seven focus areas of cultural competency for future health professionals: results of a pilot program employing concept mapping and other techniques. National Conference Series on Quality Health Care for Culturally Diverse Populations. Baltimore, MD, 2010. Available from dx.confex.com/dx/10/webprogram/Paper2853.html. Accessed May 30, 2013.
96. Echeverri M, Brookover C, Kennedy K. Factor analysis of a modified version of the California Brief Multicultural Competence Scale with minority pharmacy students. *Adv Health Sci Educ Theory Pract* 2011;16:609–26.
97. Tervalon M. Components of culture in health for medical students' education. *Acad Med* 2003;78:570–6.
98. American Association of Colleges of Pharmacy. Social and administrative sciences supplemental educational outcomes based on CAPE. 2004:1–7. Available from www.aacp.org/resources/education/Documents/SocialandAdminDEC06.pdf. Accessed May 30, 2013.
99. Kumas-Tan Z, Beagan B, Loppie C, MacLeod A, Frank B. Measures of cultural competence: examining hidden assumptions. *Acad Med* 2007;82:548–57.
100. Echeverri M, Brookover C, Kennedy K. Nine constructs of cultural competence for curriculum development. *Am J Pharm Educ* 2010;74:Article 181.
101. Tulman L, Watts RJ. Development and testing of the Blueprint for Integration of Cultural Competence in the Curriculum Questionnaire. *J Prof Nurs* 2008;24:161–6.
102. Brennan AM, Cotter VT. Student perceptions of cultural competence content in the curriculum. *J Prof Nurs* 2008;24:155–60.
103. Bednarz H, Schim S, Doorenbos A. Cultural diversity in nursing education: perils, pitfalls, and pearls. *J Nurs Educ* 2010;49:253–60.
104. Jeffreys MR, Dogan E. Factor analysis of the transcultural self-efficacy tool (TSET). *J Nurs Meas* 2010;18:120–39.
105. Jeffreys MR, Dogan E. Evaluating the influence of cultural competence education on students' transcultural self-efficacy perceptions. *J Transcult Nurs* 2012;23:188–97.
106. Khanna SK, Cheyney M, Engle M. Cultural competency in health care: evaluating the outcomes of a cultural competency training among health care professionals. *J Natl Med Assoc* 2009;101:886–92.
107. Perng SJ, Watson R. Construct validation of the Nurse Cultural Competence Scale: a hierarchy of abilities. *J Clin Nurs* 2012;21:1678–84.
108. Antioch University New England. Multicultural counseling inventory. Available from www.antiochne.edu/multicultural-center/mci/. Accessed May 30, 2013.
109. Mirsu-Paun A. Medical students' self-evaluations of their patient-centered cultural sensitivity: implications for cultural sensitivity/competence. *J Natl Med Assoc* 2012;104:38–45.
110. Weissman JS, Betancourt J, Campbell EG, et al. Resident physicians' preparedness to provide cross-cultural care. *JAMA* 2005;294:1058–67.
111. Oncology Nursing Society. Multicultural toolkit. 1999. Available from www.ons.org/clinicalresources/specialpopulations/Transcultural/ToolKit. Accessed May 30, 2013.
112. Kelley C, Meyers J. Cross-cultural adaptability inventory. Available from http://ccaiaassess.com/CCAI_Tools.html. Accessed May 30, 2013.
113. American Association of Medical Colleges. Division of Diversity Policy and Programs. Tool for assessing cultural competence training (TACCT); publication 325, 2005. Available from https://www.aamc.org/download/54344/data/tacct_pdf.pdf. Accessed May 30, 2013.
114. American Association of Medical Colleges. A revised curriculum tool for assessing cultural competency training (TACCT) in health professions education, 2009. Available from <https://www.mededportal.org/publication/3185>. Accessed May 30, 2013.
115. Mihalic AP, Morrow JB, Long RB, Dobbie AE. A validated cultural competence curriculum for US pediatric clerkships. *Patient Educ Couns* 2010;79:77–82.
116. Koplan JP, Bond TC, Merson MH, et al. Towards a common definition of global health. *Lancet* 2009;373:1993–5.
117. Battat R, Seidman G, Chadi N, et al. Global health competencies and approaches in medical education: a literature review. *BMC Med Educ* 2010;10:94.
118. Balandin S, Lincoln M, Sen R, Wilkins DP, Trembath D. Twelve tips for effective international clinical placements. *Med Teach* 2007;29:872–7.
119. Anderson C, Bates I, Beck D, et al. The WHO UNESCO FIP Pharmacy Education Taskforce: enabling concerted and collective global action. *Am J Pharm Educ* 2008;72:127.
120. Federation Internationale Pharmaceutique. 2012 FIP global pharmacy workforce report. 2012:1–85. Available from discovery.ucl.ac.uk/1369202/1/workforce%20report%20final.pdf. Accessed May 30, 2013.
121. McKimm J, McLean M. Developing a global health practitioner: time to act? *Med Teach* 2011;33:626–31.
122. International Pharmaceutical Federation. FIP education initiatives—FIP Ed. Available from www.fip.org/pharmacy_education. Accessed May 30, 2013.
123. Seaba H. Education abroad resources for pharmacy. 2011. Available from www.aacp.org/governance/SIGS/global/Documents/Resources%20for%20Pharmacy%20Study%20Abroad%20v2.pdf. Accessed May 30, 2013.
124. American Association of Colleges of Pharmacy Global Pharmacy Education SIG. Business meeting minutes. Student-related issues. 2012:24–7. Available from www.aacp.org/governance/SIGS/global/GPE%20Documents/Meeting%20Agendas%20and%20Reports/2012%20Global%20Pharmacy%20Education%20Meeting%20Minutes.pdf. Accessed May 30, 2013.

125. **Global Alliance for Pharmacy Education.** A world view on pharmacy education. Available from www.gapenet.org/en-US/Pages/default.aspx. Accessed May 30, 2013.
126. **Jeffrey J, Dumont RA, Kim GY, Kuo T.** Effects of international health electives on medical student learning and career choice: results of a systematic literature review. *Fam Med* 2011;43:21–8.
127. **Priest S, O'Connell MB, Brodman B, Nemire R.** Learning assessment of the Peruvian Amazon study abroad program. *J Am Pharm Assoc* 2013;53:e96. Presented at the American Pharmacists Association Annual Meeting and Exposition, Los Angeles, CA, March 2013.
128. **Wincor M, Sagraves R, Vos S, Schellhase E, Seaba H.** How to build a winning global experience for Pharm.D. students. Presented at the 2010 American Association of Colleges of Pharmacy Annual Meeting and Seminars, Seattle, WA, July 12, 2010. Available from www.aacp.org/governance/SIGS/global/Documents/How%20to%20Build%20a%20Winning%20Global%20Experience%20for%20PharmD%20Students.pdf. Accessed May 30, 2013.
129. **University of Wisconsin-Madison School of Pharmacy.** Belize—a timeline to experiential success. 2011. Available from <http://pharmacy.wisc.edu/discoverx/spring-2011/belize%E2%80%944-timeline-experiential-success>. Accessed May 30, 2013.
130. **Brown DA, Ferrill MJ.** Planning a pharmacy-led medical mission trip, part 1: focus on medication acquisition. *Ann Pharmacother* 2012;46:751–9.
131. **Brown DA, Brown DL, Yocum CK.** Planning a pharmacy-led medical mission trip, part 2: servant leadership and team dynamics. *Ann Pharmacother* 2012;46:895–900.
132. **Brown DA, Ferrill MJ.** Planning a pharmacy-led medical mission trip, part 3: development and implementation of an elective medical missions advanced pharmacy practice experience (APPE) rotation. *Ann Pharmacother* 2012;46:1111–4.
133. **Brown DA, Fairclough JL, Ferrill MJ.** Planning a pharmacy-led medical mission trip, part 4: an exploratory study of student experiences. *Ann Pharmacother* 2012;46:1250–5.
134. **Chahine EB, Normoo AO.** Pharmacist involvement in medical missions; planning, execution, and assessment. *Am J Health Syst Pharm* 2012;69:636, 638, 640–3.
135. **Miller M, Karwa R.** Purdue Pharmacy Kenya Program global health residency. 2012:1–16. Available from <http://ampath.pharmacy.purdue.edu/residency/information.pdf>. Accessed May 30, 2013.
136. **Connor S, Jonkman L.** Advanced practice residency with an emphasis in underserved care and global health. Available from www.pharmacy.pitt.edu/programs/residency/underserved.html. Accessed May 30, 2013.
137. **Seaba H.** Opportunities and experiences with third party placement organizations and consortia. 2012:1–26. Available from www.aacp.org/governance/SIGS/global/Documents/2012%20Components%20for%20due%20diligence%20in%20global%20placements%20and%20available%20resources.pdf. Accessed May 30, 2013.
138. **Howard J.** Curriculum development. 2007. Available from www.scribd.com/doc/17704882/Curriculum-Development. Accessed May 30, 2013.
139. **Bowen S.** Engaged learning: are we all on the same page?. *Peer Rev* 2005;7:4–7.
140. **University of Maryland.** University of Maryland, Baltimore strategic plan proposed final plan. Available from www.umaryland.edu/strategicplan/docs/StrategicPlan.pdf. Accessed May 30, 2013.