Supplemental digital content for Brottman MR, Char DM, Hattori RA, Heeb R, Taff SD. Toward cultural competency in health care: A scoping review of the diversity and inclusion education literature. Acad Med.

Supplemental Digital Appendix 2

Study Characteristics Using a Modified Guideline for Reporting Evidence-based practice Education Interventions and Teaching (GREET) Method

Authors, year[ref]	Theory, model, or framework	Learning objectives	Educational strategies	Delivery personnel	Intervention	
					Schedule and/or length	Outcomes
Koskinen et al., 2012[79]	Campinha-Bacote	Development of a cultural competency framework to use for cross-cultural education	Inquiry-based learning, immersion experiences, group work, role-playing, simulation games, discussions, foreign exchange period	Educators	4-5 years	Used within a course, no specific outcomes measured/traced.
Strong & Folse, 2015[50]	N/A	Education intervention for cultural skills and knowledge within the lesbian, gay, bisexual, transgender (LGBT) community	Use of PowerPoint presentation in a lecture	University Pride Alliance, research team and professors	40 to 45 minute presentation and use of pre- and post-tests	Significant change in attitudes towards the LGBT community and increase in knowledge.
Stone & Moskowitz, 2011[32]	N/A	Train in strategies to inhibit unintentional biases and how to enhance communication	Discussions, current examples, lectures, taking assessments, in-classroom demonstration, reflection	Instructor	Single workshop	Items described in the paper have yet to be tested for validity and impact on nursing or medical school contexts but have been verified in other studies.
Spalla, 2012[64]	Campinha-Bacote; cultural competence and confidence (CCC) model	Used to determine if the use of video/web-conferencing can improve cultural competence of nursing students	Control: traditional lecture and readings Web-conferencing: lecture, discussion, experiential learning, reflection	Professors with no prior training	35 students divided into control and web-conferencing group	Experiential learning has provided nursing students to develop knowledge and definitions of intercultural competence; reflection/ debriefing and prior experience aboard influence an increase in cultural knowledge and understanding
Smith et al., 2007[15]	N/A	Position paper to provide recommendations	Small group teaching, reflection, self-evaluation, case-based analysis,	Professors with no training but indicated the	Not explicitly stated but assess different time	The three goals of the curriculum look to change attitudes, increase knowledge

		for learning objectives, content, delivery, and resources for education on health disparities.	discussion, didactic lectures, hands on practice and feedback	importance to train the instructors	frames and methods with pros and cons	and develop skills to approach health disparities; recommend evaluation utilized an objective structured clinical examination to test skills, and knowledge; there is no study that has tested these recommendation but all information developed through an extensive literature review
Macdonald, Carnevale, & Razack, 2007[11]	Culture IN medicine and culture OF medicine	Use two different approached to determine how to best train pediatric residents in cultural care	A variety of small group activities; didactic teaching, small group discussions, large group discussions	two plenary leaders and two small group leaders	Workshop, 2.5 hours	Lecture portion was not successful and break out groups were successful. They need more time for reflection since no one was receptive to look outside their own beliefs. Showed some increase in awareness and reflection but no evaluation to determine integration into clinical practice
Lipson & Desantis, 2007[23]	Giger and Davidhizar; Purnell; Campinha-Bacote	Conduct student to assess different methods of how to incorporate cultural competency into nursing education	Papers, oral presentation, use of assessment instruments, interviewing individuals in the community, use of journals, Immersion experiences local and international, simulation	Faculty with no training	Course with a variety of required courses; 5 quarters of clinical placement in cross-cultural setting	Formal evaluation to determine effectiveness was minimal and majority of evaluations were self-reflections. Need to assess faculty training in teaching cultural courses and information
Westberg, Bumgardner, & Lind, 2005[66]	Explanatory Model	Overview of the University of Minnesota to determine how they are teaching their pharmacy students to deliver cross-cultural care	Reading (the spirit catches you and you fall down and La Doctora) used to find the basic understanding of cultural information, role-playing, videos (worlds apart videos), case discussions, reflective writings, simulation game (BaFa' BaFa' Cultural	N/A	2-semester for first year pharmacy students; (i.e., 2-4 hours with discussion and reflective paper; 50 minute class to go over case-examples; 2-hour skills lab to do	Data was collected on both the individual and overall activity impact; used reflections to gain insight into student knowledge and awareness and then conducted a pre- and post-survey intervention that found a change in understanding and comfort to want to care for

			simulation game)		BaFa BaFa); cultural competency curriculum	those from diverse cultures and backgrounds
West et al., 2015[39]	Interprofessional Educate Collaborative (IPEC)	Assess how interprofessional education addresses a variety of competencies through evaluation of disaster day	A simulation exercise, SP and volunteers; didactic session and small group case discussions	Trained simulator evaluation	A full day workshop	The use of the Interprofessional Healthcare Ethics (IPHCE) checklist suggested that the disaster day addressed communication, teamwork, roles and values
Vandenberg & Kalischuk, 2014[51]	Leininger; Purnell; Giger and Davidhizar; Campinha-Bacote	Look into how undergraduate nursing students learn about culture	Role-play, read a story, use of videos, use of panel discussion	Professors with no training	2, 8-hour seminars, integrated throughout the fourth year nursing curriculum/multiple courses	Found that students became more comfortable encountering difference after the seminars and students have an increased awareness. Students did not reflect on their culture and there needs further development in this area. Students gain self-awareness, and understood more about cross-cultural care but never moved beyond an essentialist understanding of cultural care. Can't definitively say an increase in skills or knowledge
Waite & Calamaro, 2010[78]	N/A	Evaluates cultural competence in nursing education with case examples	Use of clinical experience, SP, reflective journaling	Four educators with no training	N/A	Clinical encounters assists in increase skills for working with individuals from different cultures
Victoroff, Williams, & Lalumandier, 2013[70]	Campinha-Bacote	Dental students reflect on their interactions with a diverse population during their clinical rotation	Didactic curriculum (not explained in detail), Field experiences, and reflection papers with provided guided questions	N/A	3 year curriculum with 2 field experiences	Students reported an increase in cultural awareness and improved rapport building. Students reported requiring more knowledge to increase trust, communication skills. Overall, students found a definitive increase in awareness, the increase in

						skills and knowledge did not improve. Reflections assist in development of cultural awareness
Vela, Kim, Tang, & Chin, 2008[20]	N/A	Describes an elective course for medical students on cultural competence	Lectures, discussion, immersion experience, recommended readings, poster presentation	Faculty members	Elective course, 5 days the week before orientation	Students took a pre- and post-course survey. Found an increase in knowledge about health disparities. The timing of the course provided limited conflict and distraction but a limitation is the optional portion limiting the amount of students who participate. Changed the course to be mandatory
Vyas & Caligiuri, 2010[71]	LEARN (Listen, Explain, Acknowledge, Recommend, Negotiate) and BATHE (Background, affect, trouble, handling, empathy) communication models	Describes curriculum for pharmacy students to learn about health disparities	Lectures, self-reflection, discussion forum, reflection papers, patient care scenarios, use of communication models (LEARN and BATHE), videos, case vignettes, immersion experience, interactive panel discussion, use of guiding questions for papers and discussions. Combination of educational strategies used during each session	N/A	11 hours of course instruction over 10 semesters. Use of 6-week course for distance learners	Identified an increase in cultural awareness. Limitations included students role playing instead of SPs did not provide accurate situations, short series and did not assess the long-term impact. Recommend continued exposure and education in health disparities throughout clinical experiences and beyond
Trentham, Cockburn, Cameron, & Iwama, 2007[38]	Multiple Dimensions of Cultural Competence (MDCC) model	Looks at diversity and inclusion within occupational therapy curriculum and course design	Seminars, lectures, panels, case-based scenarios to assist in preparation for fieldwork experience. Use of reflection, discussion, and International fieldwork placements (cultural immersion experience)	Faculty who received half-day training	Integration of short workshop within the assessments course and professional develop course	Students who had a fieldwork placement abroad increase in knowledge, flexibility and developed skills in rapport building not clinical skills
Underwood, 2006[65]	Giger and Davidhizar; Purnell; Leininger	Exercises that work with students to learn about health	Lecture, self-reflection, use of anonymous and non-judgmental question time	N/A	Course conducted with 200 students, no specifics on	The exercise assisted the program in determining where the needs of the students were,

		care and culture	to gain insight into student perspectives and biases. After the question activity, use of videos, lectures, discussions, readings, incorporated into the curriculum based on concerns raised from questions		course length or time	assisting in structuring course content and facilitate more discussions based on common interested and concerns. It was a way to get students to identify any biases and stereotypes. Student's lefts within increase knowledge and appreciation for the effect of culture and diversity within themselves and others. No longitudinal data gathered
Swanberg et al., 2015[19]	N/A	A group of librarians, staff and students developed diversity programming at new medical school from 2011 to 2015	Community outreach programs and thread throughout curriculum (no details on thread); developed a diversity dialogues series for all members (staff and students); dialogue series include lecture, panel discussion or small group activities	Medical Librarians	Threaded throughout 4-year medical program, diversity series. Study evaluated 13 dialogue series with 562 participants	Program evaluation surveys are conducted using open-ended questions and ask attendees to reflect on impact of talk and ask them to work to apply that knowledge learn to their future practice. The self-report surveys found that student developed new knowledge, skills and awareness Found results could occur due to optional nature of the events, putting all attendees at a pre-disposition to want to acquire more knowledge and skills within this area. No formal evaluation conducted to determine level of skills acquired.
Thew, Smith, Chang, & Starr, 2012[37]	N/A	Looks into the effectiveness of the deaf strong hospital program to educate first medical students of diversity and health disparities	Case scenarios, use of didactic presentations, hands-on role-reversal exercise, debriefing	Faculty and community members	Single day workshop; held in the first two months of the academic year	Looks at short-term and long-term post program evaluations. Short-term feedback found an increase in student's attitudes to working with diverse populations but would like more information on health disparities. Long-

						term portion occurred when students were out on clinical rotation, found to still be important in changing attitudes and awareness but did not have a formal way to assess changes in skills. Students noted a higher comfort when working with interpreters and individuals from different cultures
Ramalanjaona & Martin, 2015[109]	Liaison Committee on Medical Education (LCME) framework for cultural care development	Discusses the skills and program specific for emergency medicine faculty to integrate into academic life	Provided resources for course development and use of positive role modeling and mentorship	Intervention was focused on the faculty who will be later provided the education	A series of workshops to work on faculty development	Faculty development programs should be a continuum that begin with exposure and lead to a progression of continued training. Faculty directly influence students therefore, it is important for faculty to be trained in diversity skills, and encourage mentorship for students.
Powell-Sears, 2012[18]	Intersectionality theory; patient-centered cultural care model; Rapport, Empathy, Support, Partnership, Explanations, Cultural Competence, Trust (RESPECT) clinical care model	Description and application of an intersectional framework to approach cultural competency education for health professionals	Self-reflection, education in communication and interview skills	N/A	Incorporate framework into the curriculum; recommendations for length provided in article	Use of intersectional framework assist to improve cultural competence education by reducing the amount of bias and stereotyping caused from other models. Provided with skills to improve communication through use of RESPECT model (nothing proven)
Powers et al., 2010[74]	Experiential Learning Theory	Twelve schools participated in a program to determine if students received and had confidence with approach tobacco cessation	Clinical experience-requires students to reflect and receive feedback on providing culturally relevant care. Use of didactic learning, self-reflection and practice are the key areas	Faculty with no training.	Not explicitly described, needs to be within the curriculum	Assist in improving skills and awareness you need to reflect on real life experiences in clinical world and be accurately guided by instructors to assist in increasing awareness and insight

		programs for individuals from different cultural groups				
Poirier et al., 2009[2]	Campinha-Bacote, Health belief model, LEARN communication model	Designing and evaluating the effectiveness of a course on cultural competency and health literacy	Use of team-based approach: limited lectures, readings completed prior to class, team projects, use of blackboard reflection portfolio, short video vignettes from HBO (If these walls could talk 2), use of "Toward culturally competent care: a toolbox for teaching communication strategies" from University of California, and case scenarios	N/A	A course lasting longer than 2 weeks; used through 7 course objectives	Use of Inventory for Assessing the Process of Cultural Competence among Healthcare Professionals (IAPCC-R) assessment to evaluate course effectiveness; results showed students did not achieve full cultural proficiency. Awareness and knowledge-increased skills were not able to determine. A course using a team-based approach was effective but would change the textbook and add more applications to specific area of practice and cultural competencies
Pottie & Hostland, 2007[36]	N/A	Review of training medical students to work with refugees and improve their ability to work with people from different cultures	internet based training, self-assessment quizzes and a workshop put on by faculty; immersion experience working with actual refugee families; participated in group debriefing after experience	Faculty with experience in refugee health	An elective course	Students report increase in knowledge and skills utilizing cross-cultural health care; students stressed the importance of positive reinforcement from faculty and mentorship
Pilcher, Charles, & Lancaster, 2008[62]	LEARN communication model	Article presents the curriculum and modifications to assist in developing culturally sensitive dental students	Immersion and clinical experiences, community assignments, lectures, self-awareness homework, videos/movies (patient diversity: beyond the vital signs; worlds apart: Mohammad Kochi's story and used the worlds apart facilitators guide to assist in discussion), and	N/A	All students participate with immersion portion. There are 3, 2-hour blocks in first year and one four hour-block in their second year. First year items occurred before the start of the year	Results found to increase knowledge and self-awareness in cultural competence. Students reported enjoying the interactive experiences. Study is looking to assess longitudinal data to determine if students retained knowledge. Nothing was noted in regards to increased skills

			community presenters		and then second year classes occurred after clinical experience	
Paul, Devries, Fliegel, Van Cleave, & Kish, 2008[61]	N/A	Look to develop, implement and evaluate a culturally effective health care curriculum that has been integrated into clinical rotation for medical students in their third year	Lectures, role-play, real-time patient cases, feedback and OSCE	Training for faculty occurred to assist in conducting the curriculum to be positive role-models	Curriculum called culturally effective health care (CEHC) which were divided into three units.	Goal of the curriculum was to develop increase knowledge, skills and attitudes. Objective Structured Clinical Examination (OSCE) to determine increase of knowledge was more effective then self-report measures. Self-report was important to determine change in attitudes. The OSCE did not have significant impact on skill level. Students benefited from observing positive modeling from faculty
Paul, Ewen, & Jones, 2014[91]	Haffety's Taxonomy	Utilizes Haffety's taxonomy of curricula, formal, informal and hidden to describe cultural competence education within the medical field	Reflection tools	Provided professional development opportunities	Curriculum, not specifically described	Need to develop self-reflexivity, communication skills, understanding history. It is important to address the formal, informal and hidden curriculum to ensure cultural care is being effectively taught
Parcells & Baernholdt, 2014[108]	N/A	Development of a global curriculum framework that focused on training faculty to adequately deliver the information	Discussions of cultural awareness and influence on teaching, short video, web sites, TED talk clips, Cultural orientation, reflection and engagement (CORE) program- for students studying abroad, hands-on learning through writing specific objectives for their courses, Book called Zoom, and use of	Faculty was the focus of the intervention to assist in developing their skills	Delivered through 2 workshops for faculty: 4 hours and 5.5 hours. Use of going over their course to determine how to incorporate cultural competence into their program	Took the feedback from first workshop surveys to restructure the second workshop. Use of self-reflection is a good tool to utilize for faculty development. Important to learn how to promote skills, knowledge and attitudes in cross-cultural care curriculums. Use of this workshop model is successful

			skype to get diverse guest speakers			in restructuring curriculum with a global focus
Shellman, 2007[87]	Social Cognitive Theory	Determining if the use of reminiscence education assisted nursing students in delivering cross-cultural care to the elderly	Lecture with handouts, discussions, role-playing, quiz, received a reminiscence booklet, and use of their learned experience on clinical placements	Researcher	2-hour education program and 13 week experience. Had an intervention and control group	Conducted a pre-, post- and 30 days later through the eldercare cultural self-efficacy scale. Use of Bandura's model assisted in developing confidence and self-efficacy, previously exposure to cultural education positively influenced working with older adults. Increased in self-efficacy of utilizing cultural sensitive items through reminiscing
Panzarella, 2009[80]	Campinha-Bacote	Evaluation of the University of Buffalo Cultural competency programs	Use of case scenarios, Standardized Patients (SP), used to assess knowledge from their curriculum through OSCE, Refugee Experience: use of reading material, handouts, view and discuss film, self-reflection	Faculty who provided feedback to students	12-hours of classroom based work with 5 hours of case studies.	Completion of self-assessments, and feedback from staff, students reported that the integrated standardized patient examination (ISPE) event was challenging but rewarding. The ISPE and refugee program is expensive. Use of the hands-on experience was a good way to integrate information and knowledge into skills along with immediate feedback and self-reflection
Sheu et al., 2010[104]	N/A	Student designed service learning based curriculum with a focus on local health disparities	Didactic learning, clinical skills elective and clinical placements	N/A	Voluntary curriculum and offered to all pre-clinical health professional students. Don't have to do all three parts can choose to do one, two or all of them	Development of service-learning program allowed students hands-on group experience with an interprofessional collaboration. High student involvement in the voluntary program. Limitation: They did not formally assess to determine outcome changes in

						either skills, knowledge or attitudes. Added a reflection portion
Seeleman et al., 2014[105]	Cultural competence framework by Seeleman	Overview of outcome measures looking at knowledge, reflection and self-perceived cultural competence and how it relates to developing culturally competent educational programs	Reflection, case scenarios, and completion of knowledge assessments	N/A	Not explicitly described but occurred with students in or right before their clinicals	Assessing student's level of cultural competence and current practitioners allows for identification in gaps in knowledge, awareness and skills. Using the Tool for Assessing Cultural Competence Training (TACCT) and the gaps can assist in development of course outcomes to be student-centered
Schuessler, Wilder, & Byrd, 2012[24]	N/A	Wanted to see if the use of reflective writing revealed anything about the experience of cultural humility	Reflective writing on clinical experiences	Faculty	Use of community-based curriculum, partnering with local low income housing, 4 semesters of clinical experience	The immersion, hands-on experience within the community showed to be effective in developing cultural humility. It began with formation of self-awareness then it caused them to make more connections to health disparities, and finally they integrated and were accepting of all and embraced differences. Cultural humility is a lifelong development process that cannot be only taught in the classroom. Increase in self-awareness and reflection abilities
Sanner, Baldwin, Cannella, Charles, & Parker, 2010[48]	Campinha-Bacote	Determine the effectiveness of a diversity forum on students in a nursing program	Discussion between students and panel of experts, lecture from experts, use of interactive activity designed to integrate information from lecture (role-playing- given	No formal supervision, faculty can attend event for professional development	Optional Forum lasting 3 hours long (45 minute presentation, activity and end with 15 minute debriefing session)	Use of pre- and post- test design; with a lecture and hands-on experience they found an increase in awareness/openness to diversity. Limitation: selection bias due to optional

			a specific group and had to try and get health insurance), reflection and debriefing from activity			event. Recommend utilizing more than one teaching strategy
Sargent, Sedlak, & Martsolf, 2005[49]	Campinha-Bacote	Evaluate nursing students and faculty's level of cultural competence and implications for curriculum design	Written exams, self-assessments, interview someone from a different cultural in a written paper format, discussions, student-led seminars , immersion experience in clinical practice	Faculty specifically selected based on their contribution to training students in cross-cultural care	Take intro into sociology, and another course of their choice, four cultural seminar courses required (one in each level of the program) and use of curriculum threads, clinical experience	Essential to focus on cultural competence at each level of learning is important; use of active learning strategies are important for faculty and student development and use of immersion experiences. Need a long-term commitment to continue learning from both students and faculty. Limitations: not longitudinal
Romanello, 2007[44]	Purnell	Describes how a physical therapy program integrated cultural competence into education	Reflection on beliefs, values and attitudes, group discussions, immersion clinical experience, in-class and in-service discussions, awareness activities, use of case scenarios, magazines, research publications, and focused on communication	Faculty that is trained by school to approach cultural education	Integration and curriculum thread of cultural competence throughout a programs curriculum	Immersion experience good but needed more preparation from in class experiences and more resources for discussing their clinical experiences while they are happening. Found that change starts with the faculty members in order to develop courses that integrate an effective way of educating students on cultural competence. Limitations: wanted more explicit information and discussions; took 10 years to accurately develop and integrate cultural competence
Saleh, Kuthy, Chalkley, & Mescher, 2006[85]	N/A	Evaluated different dental schools integration of cultural education to identify similar	Lectures, case studies, small group discussions, lectures from community, problem-based learning format, role-play, and use	Faculty used but training not explicitly discussed	Defined formal cross-cultural curriculum encompassing for both an	Majority of schools used formal curriculum but there is no uniform way of teaching or evaluating. Schools need to formally develop goals and

		characteristics for education	of multiple methods was more common. Assessments included written exams, direct observation, journaling, oral presentation, and OSCE		independent course or integrated into a course through specific objectives	objectives for development of cross-culturally care to more adequately integrate them into the classroom. None of the schools established the gold standard
Ross et al., 2010[93]	Train-the-trainer model	Outline of the materials developed to assist in creating comprehensive course or curriculum in education on health disparities	Small group discussions, role-play, lectures, case based learning and experimental activities	Anyone who leads this portion are required to have prior training	5 modules all together lasting 4 hours, and 3 objectives to cover knowledge, attitudes and skills	Can utilize the modules to train faculty to integrate cultural care into the curriculum. You can download the modules for use. No explicit information of use of modules but they were developed through a group of health professionals
Ritten, Waldrop, & Wink, 2015[69]	N/A	Assessed attitudes of nursing practitioner students exposure to poverty	Clinical rotation	N/A	Required to serve 32 out of 180 clinical rotation hours at a low-income location	Use of pre- and post- test design demonstrated improvement in attitudes at the end of the clinical rotation. Limitations: single site for immersion experience and post-survey
Rosenthal, Morales, Levin, & Murphy, 2014[63]	Common sense model of self-regulation	Describe a program for pharmacy students to work with a diverse group of patients using a different model and educational method	Education on model, clinic structure and how to develop self-management goals, model used to educate on communication, lectures, videos and role-playing (no additional readings), hands-on experience and observation	Faculty used to model for students, no specific training noted	5 week placement at a clinic; behavioral training was 4 hours long	Immersion experience in the clinic allowed for students to apply their knowledge and increase confidence. Integrative faculty who utilized both classroom and hands-on experience assisted in both an increase in cultural and behavioral needs assessment. Assisted in development of skills through application in real-life experiences
Roberts, Warda, Garbutt, & Curry, 2014[7]	N/A	Using high-fidelity simulation for nursing students to learn about cultural	Use of clinical scenarios with simulation either high or low fidelity simulators	N/A	Not explicitly described but needs to be within the curriculum of	Recommends the development of a comprehensive education process that blends knowledge

		competence			the school and can either be a single course or through an entire curriculum	and application/skills together; many nursing programs complete utilize application and hands on activities but they do not track the outcomes if they work for students to adequately integrate information
Ring, 2009[97]	N/A	Provides information and education into how health disparities are considered in health education and discuss the integration of psychology principles for teaching cultural care within a family medicine residency program	Unnatural causes a documentary series, lectures, role-plays, case review, imagery exercises, exposure to implicit associations test and reflective writing. After lectures, residents required to make a commitment to change a specific item within practice and the commitments are collected in learning portfolios and reflective writing	Faculty- need to have training and can use the Subjective, Objective, Assessment, Plan (SOAP) GRID during learning opportunities	33 hour curriculum delivered over the course of 3 years.	The program worked to change knowledge, attitudes and skills. All information was collected in the form of "commitments" but no formal evaluation was conducted. Recommend collaborating with behavioral scientists to assist in development and implementation of cross-cultural care curriculum within a residency program
Riner, 2013[12]	Sunrise Model; Globally engaged nursing education (GENE) model	Development of an undergraduate course to increase students' interactions with and knowledge of the local immigrant populations	Visiting a foreign-born clinic; community integration work, use of articles; Interviewing immigrant-serving agency staff; Making a DVD on how to access public health clinic services; use of clinical work; Viewing videos and websites about immigrant experiences before coming to and after arriving in the U.S.; Attending brown bag lunch sessions such as "How do you Pronounce that Name?"	Coordinator of Doctor of Nursing Practice	Undergraduate course taken over a 2-year period	A culturally competent person who provides holistic nursing care to a variety of individuals, families, and communities; The development of new understandings of health concerns and practices, customs, food, and lifeways that decrease a sense of the unknown and increase familiarity with what was once foreign; The development of a global perspective
Norris, 2007[35]	N/A	To think about and	Novels, letters and factual	Faculty	One lecture	Reading about the lives of

		discuss mechanisms by which lower socio-economic status impacts health; to develop empathy for and understanding of experiences of disadvantaged people	accounts of lives spent in poverty were used to stimulate students to think about and discuss how low socio-economic status might compromise people's health, lecture	Members- no mention of training	followed by one 80-minute workshop; workshop has been run five times	disadvantaged people has demonstrated to be a useful way to improve students' empathy and awareness of the connections between socio-economic status and health
Ndiwane, Koul, & Theroux, 2014[77]	N/A	Improve knowledge of health care needs, skill in assessing culturally centered patient behaviors, skill in designing culturally relevant treatment plans, knowledge of cultural beliefs, and knowledge of languages used	Video-recording, SP, OSCE, didactic content, case studies	Faculty	Delivered over a 3- to 4-year period, with SP interactions lasting 15 minutes each	Students perceived that their critical thinking skills were enhanced; a significant change in knowledge about the health care skills needed and health care needs of a culturally diverse person was obtained after the OSCE
Muzumdar, Holiday-Goodman, Black, & Powers, 2010[68]	LEARN model, RESPECT model, ADHERE* model, Patient Centered Clinical model	Understanding of health care disparities through a variety of outcomes and activities within the classroom	Lectures, laboratories, and experiential/out-of-class assignment	Faculty	Five university pharmacy courses offered in the fall and spring semesters paired with cultural competency activities and out-of-class assignments	Pharmacy students' awareness of and confidence in addressing cultural diversity issues that affect pharmaceutical care delivery was significantly improved
Nazar, Kendall, Day, & Nazar, 2015[96]	Cultural competence; cultural humility	15 semi-structured in-depth interviews were conducted in order to identify models of diversity education in the	Lectures; reflection; communication lecture featuring role playing called “Dealing with Difficult Situations”	Faculty; training important to encourage student and institutional buy in and provide	Education focused within pre-clinical years	Students reported that use of a lecture imposed limitations when teaching cultural competence and cultural humility. Students feel that learning about culture during

		current medical curriculum		consistent educational environments		practical experiences would be beneficial. No diversity training within the clinical context due to limited time and resources
Mihalic, Morrow, Long, & Dobbie, 2010[53]	Cultural competency model	Design and evaluation of a multi-modality cultural competence curriculum including a validated cultural knowledge test	Facilitated group discussion, clinical case vignettes, online quizzes, satisfaction questionnaires, student role play, lecture and discussions with interpreters.	Faculty	8-week curriculum, ranging from 45 minutes to 75 minutes; workshops occurred once per week	Students agreed that the curricular intervention was a meaningful experience. The intervention increased understanding of the culture of medicine, knowledge of racial and ethnic disparities and core cultural issues, improved skills in working with interpreters and cross-cultural communications
Miller & Green, 2007[98]	Cultural Competency model	To investigate what students may have learned in a cultural competence OSCE station	Case studies, OSCE "station", reflections	Faculty observations- no training mentioned	OSCE experience composed of seven 20-minute stations focusing on history-taking and physical exam skills that culminates the required Patient-Doctor II course. Cross-cultural care is the focus of the seventh station	The importance of eliciting the patient's perspective on their illness in a culturally sensitive way; the need to examine how and why patients take their medications and to enquire about complementary and alternative therapies; the importance of exploring the range of social and cultural factors associated with medication non-adherence
Lonneman, 2015[72]	Campinha-Bacote	Raise issues related to racism, classism, and privilege and to establish these concerns as a lens for the course and deepen students' learning and develop a regular habit of self-awareness	Class discussion, in-person interviews conducted by the student, videos, personal history reflection paper, journal entries, "privilege walk"; The testing of 6 different teaching strategies to raise cultural awareness, a key aspect of cultural competence	Intervention group was delivered by an Doctor of Nursing Practice (DNP) and Registered Nurse (RN)	Second semester of a full-time 4-semester nursing program, six sessions introduced within a population-focused community health course	Increased students' cultural awareness; improved other essential nursing skills such as communication, ethical reflection, and critical thinking. Students receiving the intervention rated all 6 teaching strategies as effective in raising cultural awareness

Lie, Shapiro, Cohn, & Najm, 2010[57]	Reflective Practice model; Socratic approach to facilitating discussion	Working with student to adopt alternative perspective, explore ways to address cultural encounters and foster critical thinking skills to reduce health disparities	Essays and discussion sessions (employing the Socratic method), Reflective practice curriculum, group medical visit (GMV), walking tour of community facilities	Faculty trained in a 2-hour face-to-face teaching sessions	4- week family medicine clerkship (n=188 students, 6 to 12 per rotation) in 23 successive rotations over 2 years	Students achieved greater synthesis and more nuanced understanding of cross-cultural encounters after discussion. Self-rating of confidence in addressing cultural issues after the curriculum was high, cultural knowledge scores improved significantly. Written reflection followed by facilitated peer discussion adds value to simple 'exposure' to cross-cultural clinical experiences for medical students
Lubimir & Wen, 2011[95]	N/A	To promote humility, empathy, curiosity, sensitivity, and awareness toward patients through different activities and workshops	Case-vignettes, role playing, and small group discussion; using case-vignettes, role playing, and small group discussions; students (number unknown) from the John A. Burns School of Medicine, faculty coaching students with role playing and providing feedback on key skills for end-of-life discussions	Faculty; no training or qualifications discussed	Interactive 3-session workshop divided into three one-hour sessions: breaking bad news, discussing advanced directives, and discussing withdrawal or withholding of treatment	Graduating medical students engaged in culturally competent palliative and end of life patient care; learned both culturally sensitive and effective communication techniques for advance care planning and end-of-life discussions
Liu, Poirier, Butler, Comrie, & Pailden, 2015[84]	LEARN Framework	Development of two Interprofessional Education (IPE) culturally competent communication sessions designed for Provide an overview of what culturally	Icebreaker activity, team-based discussions, training video, case-based reflection and team problem-solving, faculty-led discussions	Faculty- worked together to develop program needs and interest in cultural competency training	2-session IPE program with an 18-minute training video, session 2 took place one month after the first session	The IPE effectively addressed all learning outcomes and will continue in future course offerings. Using cross-cultural communication as a thematic area for IPE program development resulted in educational benefits for the students

		competent patient communication and develops problem-solving and decision-making skills				
Lim, Wegelin, Hua, Kramer, & Servis, 2008[58]	N/A	Medical students learn to understand the patient's experience of illness and treatment in a cultural context and to identify and address culture and gender biases in themselves and the effect on diagnosis and treatment using a specific assessment tool developed for this project	Discussion, brief 12-minute training video, case vignettes, lecture	Faculty	2-hour presentation for first-year medical students; beginning with a discussion of U.S. demographics and mandates for cultural competence, followed by a discussion of interpreting. A brief 12-minute training video, the Therapeutic Triad, was shown	Results support the effectiveness of a brief, well-designed presentation to increase the knowledge and affect the attitudes of first-year medical students regarding cultural competence in the doctor-patient relationship and in the use of interpreters. Students showed a greater change in knowledge then in attitudes. Results support the utility of providing exposure and training in interpreting to medical students in the curriculum to increase cultural awareness and competence
Leflore, Sawning, & Hobgood, 2015[46]	Culture of the community model; immersion model	Chapter describes a selection of educational models currently used for cultural competency education. It identifies assessment methods that can be used to measure cross-cultural skills acquisition	Cultural 1-week immersion, discussion, videos, OSCEs, SP, stations, multi-session seminars using poetry, short stories, and other literary media, interactive lectures, role-play exercises, patient interviewing, feedback on cultural issues, use of the community to understand and enhance cultural understanding; information is delivered four 2-day workshops. Curriculum	Faculty trained to assist in generating meaningful dialogue	Varied (semester-long course curriculums, one-week immersion experience, 2-day workshops, etc.); Culture and Diversity course model: Wake forest University-use a yearlong course that is based off 27 core competencies	Cultural competency across disciplines rather than gender, race, or ethnicity; Students ask question that address cultural issues for each of their clinical encounters and their personal biases; self-reflection, critical appraisal; closing the well-identified gap between health care and health outcomes in cultural and racial minorities; specific training on the attitudes and knowledge gaps that perpetuate the gap between health care and health

			uses GNOME (goals, needs, objectives, methods and evaluation). This format can be applied to students, faculty and residents			outcomes
Lim, Diamond, Chang, Primm, & Lu, 2008[106]	N/A	Medical students must learn to recognize and appropriately address gender and cultural biases in themselves and others in the process of health care delivery by increasing self-awareness during educational instruction	Non-feature films, discussions about emotional reactions to the film, role-modeling to decrease anxiety and increase knowledge about health issues; videotape as a communication strategy for people who have low literacy skills; DSM-IV-TR Outline for cultural formulation, used as an organizing principle for describing the use of the films. The films stimulate discussion about racism, cultural mental health beliefs, the role of ethnicity in psychotherapy. Includes five parts: cultural identity of individual, cultural explanations of individual's illness, cultural factors related to psychosocial environment, cultural aspects of the relationship between individual and clinician, and overall cultural influence on diagnosis and approach to treatment	Faculty- no training or qualifications discussed	2.5 hour session with 30 minutes for eating, 90 minutes for film, and 30 minutes of discussion	Watching the films is a powerful and emotional experience, with participants revealing their innermost thoughts and anger toward the mainstream culture for the act of marginalization
O'Shaughnessy & Tilki, 2007[99]	The Papadopoulos et al. (PTT) model of transcultural skills	Explore the multifactorial nature of culture to	Large group discussion, scenarios exploring culturally competent care	Faculty- no training noted	Training takes place for 2 days spaced over a	Participants were able to articulate concerns about limitations in knowledge or

	development	enable staff to explore their own values, beliefs and ideas	for clients; presentations by local representatives from refugee/asylum seeker communities; small group discussions		month to allow time for reflection; ideal number of participants is 12-15 to allow for small group discussion and debriefing. Cultural awareness session for 45 minutes and cultural introductions for 45 minutes. Then for 75-90 minutes, they explore how their own culture has been shaped and developed	confidence that may contribute to culturally insensitive care, and to generate new ways of tackling issues that had been raised. Leads to improvements for ethnic minority patients, encourages reflection on practice
Northam, Hercelinskyj, Grealish, & Mak, 2015[60]	N/A	Build student confidence and skills through cultural mapping to help student recognize their own perspectives to education them on how to provide culturally sensitive care	Pre- and post-surveys to develop learning outcomes; weekly participation in group discussions; cultural mapping tasks; case vignettes; anonymous student feedback/ "message in a bottle" wish lists; Excellence in Cultural Experiential Learning and Leadership Program (EXCELL) training manual provides a structure to teaching cultural information and helps to increase student confidence to help guide patient sessions. Stages include approach, bridging, communication and departure	Faculty- no training was indicated	14-week program, two consecutive clinically based units of study, which spanned semester one and semester two of one year at one university; weekly structured workshops	Found that there is a high need to incorporate culturally competent care, but this needs to be a dynamic process. It also found it would be helpful to incorporate other professionals into activities. Students demonstrated an increase in cultural learning in a range of areas in the pre-post surveys including understandings of cultural diversity, interpersonal skills, cross-cultural interactions and participating in multicultural groups

Nuyen, Scholz, Hernandez, & Graff, 2015[101]	Cultural competency lens; the gingerbread person concept	Increase awareness of LGBT health and the health disparities that affect the LGBT community; increase perceived level of comfort in engaging LGBT patients; increase awareness of LGBT health care providers and services	Interactions with LGBT community and active learning activities; lecture, panel of 6 diverse LGBT community members; small group problem-based learning session using actual medical cases; video vignettes	Trained medical school faculty lead small group discussions	One full day multi-pronged educational intervention	Could use more hours to cover this subject; interactions with LGBT community members and active learning activities were more beneficial than a lecture
Lee, Brown, & Bertera, 2010[102]	N/A	Work with students to promote higher levels of diversity values, skills and knowledge in cultural diversity	Use of online technology not to replace the in-class setting and instruction but to use as an additional place of discussion; Students felt more comfortable to ask questions and make comments that they would have not made in person. Assists in learning and meaningful interactions. Students' in-classroom setting may censor what they say for fear of judgment from instructor and other students; Online communities facilitate adult learners to draw upon their previous experience, consistent with a major premise of adult learning theory and social work values	Faculty; experimental class sections were taught by the first author	12 class sections of a required Diversity and Cross-Cultural Issues course; brief tutorial was given during the beginning of the semester to prepare students in the experimental group to use the discussion forum	Found that when online technology is used correctly it assists in learning and meaningful interactions. It is important how students use technology, not just if they are exposed to it, that makes a difference on the perceived benefits
Lamba, Tyrie, Bryczkowski,	N/A	Teach surgery residents how to	OSCE, role-play, didactics with journal club and	Medical school facilitators;	Time for teaching and testing of	The interactions with SP are most helpful to evaluate skills

& Nagurka, 2016[34]		deliver difficult news and to assess achievement of this competency	discussions; workshop, SP, simulation, faculty role modeling, video vignettes, family meetings, case-based discussion	training not discussed	communication skills varied between 20 minutes and 40 hours depending on whether delivery of difficult news was part of a larger curriculum (palliative care) or not	of the students. Recent trend to use OSCE to both teach and assess communication skills
Mathews, Parkhill, Schlehofer, Starr, & Barnett, 2011[59]	N/A	Participate in the deaf strong hospital to assist in identifying cultural differences in the context of providing healthcare	Role-reversal; role play with members of the deaf community; group debriefing; panel discussion; surveys; Group debriefing: students reflect on the experience; Deaf strong hospital role-reversal exercise to increase first-year pharmacy students' awareness of communication barriers in the health care setting, especially for deaf and hard-of-hearing patients	2 members from the program and 2 from the deaf community to develop the role-reversal activity	Daylong workshop to participate in the Deaf Strong Hospital (DSH) Program	DSH provided an effective eye-opening experience for students to increase their knowledge of the healthcare barriers that underserved patient populations experience and how to best communicate with these patients
Matsuda & Miller, 2007[73]	N/A	Language and teaching development for the international teaching assistants; communication and client interaction for the OT students; specific course goals not provided	Outdoor ropes course, sharing meals together, 15 minute lessons (lecture), feedback, practice interviewing, role-play, surveys; included social ice breaking activities in initial peer teaching assignments. Field experiences in multicultural situations can enhance cultural sensitivity provided the contact is	Teaching assistants; no training discussed	3 consecutive fall semesters (2001-2003); 15 minute lesson, OT students provided feedback; 47 occupational therapy students and 39 international graduate students following 5 peer	Peer teaching activities significantly impacted cross-cultural communication for students with prior international travel experience and confirm the importance of contextual learning; the OT students rated peer-teaching experiences higher than experiences with family, friends, or in the workplace for increasing their cultural

			positive and extensive		teaching activities	awareness and communication skills
Martinez, Artze-Vega, Wells, Mora, & Gillis, 2015[47]	N/A	Educate future physicians to provide effective care to diverse populations using their twelve tips of education	Identification and reflection of personal biases; topics incorporated throughout the medical curriculum; assessing using short answers and essays; service-learning opportunities; discussion of race and disease outcomes; history lessons; application exercises such as small group discussions and problem-solving strategies; raw data exercises; relating to biological models,	Medical school faculty; developed and delivered a longitudinal course over the last 5 years	Varied (semester-long course curriculums, role-plays, self-reflection, essays, external service learning opportunities)	Keep content simple, concrete, and applicable when teaching social determinants of health in medicine. Students can get overwhelmed by the magnitude of social issues impacting health outcomes; therefore it is important to focus on HOW to address issues rather than just presenting on them. Giving students tangible tools is key. Must also gather student input to develop course content. Make strong connections between social determinants and biology for students to remember the powerful influences when they are practicing physicians
Mancuso, 2011[81]	Campinha-Bacote; Davidhizar and Giger	Development and implementation of a customized, integrated approach to staff cultural competence by the diversity committee of a community hospital in New Hampshire. Engages individuals in readiness to learn and supports changes in behavior to promote health	Full-day workshops, one contact hour with multidisciplinary panel, surveys, poster presentation, role play; computer modules; case studies	Faculty from the diversity committee with no training discussed	3 full-day workshops, one 3-hour long contact hour/panel, case studies, computer modules, open discussions, question-and-answer period	A customized, integrated approach to cultural competence education requires background information to be gathered about how the organization fits into the community, identifies trends in service use by groups, links organizational initiatives to cultural competence, and shows how cultural competence is an important skill for staff at all levels of the organization to apply in their daily work roles

		equity and cultural proficiency				
Kutob, Bormanis, Crago, Gordon, & Shisslak, 2012[88]	"Explanatory models" of illness	Skills-based approach provides tools for students to uncover and explore their patients' own sense of culture and their explanatory models of disease	Role plays, four-hour cultural competence workshop, skills-based curriculum	Instructors not discussed	4-hour cultural competence workshop with 228 pre-clinical medical students	Workshop demonstrated that a brief, skills-based curriculum can help students understand cross-cultural patient dynamics. Built-in flexibility of this approach is more suitable to the increasingly diverse population of the U.S. and offers a better method for teaching cultural competence than knowledge-based models. Provides tools for students to uncover and explore their patients' own sense of culture and their explanatory models of disease
Krajewski et al., 2008[56]	N/A	The study attempted to define barriers to skill-acquisition and examine efficacy of educational programs in improving cultural competence through basic methods of acquisition of these skills	2 lectures: first centered on an interactive introduction of the basic concepts of cultural competence in health care. Second: highlighted several components of cross-cultural patient care	Faculty members; In centers where the diversity center is not available, lectures should be delivered by visiting external faculty	2 lectures specifically designed to be brief and easily incorporated into the weekly resident lecture schedule; total length of time for both lectures was approximately 3-4 hours divided into 2 sections	Surgery residents were examined for 3 measures of cultural competence prior to 2 teaching sessions and showed marked improvement on all 3 measures after this brief intervention. Improving cultural competence among residents is achievable through simple measures that can easily be incorporated into the curriculum
Kutob et al., 2013[67]	Multicultural Categorical approach; Cross-cultural or "skills-based" approach	A skills-based course on culturally competent diabetes care was developed and tested in a controlled trial of primary physicians caring for patients	Physicians given 1 month to complete the introductory case, and at least 2 of the 4 additional modules; everything took place online	Instructors not discussed	1 month given to complete introductory case and at least 2 of the other 4 online modules	The skills-based approach online modules for training physicians did not change aggregate measures of cultural competence, but did affect key attitudes and behaviors, which may better reflect the goals of cultural competence training

		enrolled in one state's Medicaid program				
Kumagai & Lypson, 2009[33]	Conceptual orientation of "critical consciousness"	Teach patient centered care, and the longitudinal case studies course in which different clinical cases are introduced during a two- to three-week period in conjunction with the students' core lecture series	Discussions and lectures, clinical skills course, small group-based activities, home visits, longitudinal clinical cases, collaboration with a theater troupe to design a workshop using interactive theater techniques for faculty instructors to prepare them to facilitate potentially contentious discussions on diversity and social justice (brief sketch of a heated argument about race within a small group, followed by "freezing" the actors in character and allowing instructors in audience to ask questions); stories, cognitive disequilibrium, "keeping it current"; evaluation	Medical school faculty; Faculty are provided with reference and background materials, thought pieces, and self-reflective exercises to use in their groups and to provide a foundation for their facilitation. Receive extensive faculty development, including workshops on active learning and facilitation, providing feedback, and stimulating reflective learning	Clinical skills course, the Clinical Foundations of Medicine (CFM) use of small group-based activities to through the longitudinal case studies course during a two- to three-week period in conjunction with the students' core lecture series	A reorientation in the goals of multicultural education must be accompanied by both a reorientation of the traditional teacher student paradigms and of assessment methods in the area of medical education. The development of critical awareness and a "critical consciousness" is a central goal in multicultural education
Kripalani, Bussey-Jones, Katz, & Genao, 2006[94]	Adult learning theory; Diffusions of innovation model; 3 main conceptual approaches: knowledge-based programs (the multicultural/categorical approach), Attitude-based curricula (the cultural sensitivity/awareness	To prepare for cultural competence, promote an active and integrated approach to multicultural issues throughout medical school training, teach practical skills and use	Interactive educational methods such as SP, role play, and self-reflective journal assignments; cultural competence dispersed throughout clinical education rather than in isolated workshops; the teaching of practical skills	Faculty physicians "who have cultural competence training"; equipping committed faculty physicians with the skills necessary to	Content dispersed throughout curriculum rather than isolated in workshops	Nine suggestions or "prescriptions" for cultural competence proposed by the authors to promote an active and integrated approach to multicultural issues throughout medical school training. The prescription for cultural competence calls for a more active approach, integrated across all levels of

	approach), and skill-building educational programs (the cross-cultural approach)	interactive educational methods		routinely discuss multicultural issues as part of patient care		medical education. Implement multilevel curricula, achieve support from senior administrators
Tuck, Moon, & Allocca, 2010 [103]	N/A	Graduate nurses from the Nursing Administration and Leadership track who would complete cultural competence training and be able to provide culturally competent care through four modules	Participation in a cultural simulation activity, guided case histories, the game Diversophy and case studies, Real Time Encounter, worlds Apart DVD, and an opportunity to view a current movie; children's literature The Sneetches by Dr. Seuss and article critiques; Five different approaches to teaching cultural competence: specialty focus, required courses, models, immersion experiences, and distance learning or simulation	Module training was conducted for the adjunct and full-time faculty responsible for teaching the modules. Approximately 4 hours for module 1, and 2-3 hours each for additional modules	4 modules integrated into the curriculum: modules have been consistently taught for 6 years. Module 1 lasts 4 hours; modules 2, 3, and 4 last 2-3 hours each	Authors recommend the use of the modules and make suggestions for future implementations; A cultural competence portfolio should be developed by the students and their work be evaluated after completion of module 4; anecdotal data of this study suggest that the modules do make a difference in the education of culturally competent care
Rust et al., 2006[3]	CRASH Model- Course in Cultural Competency training program for medical professionals	Interactive lesson that includes various educational strategies and teaching methods to assist in development of cross-cultural skills into practice through the use of the CRASH model	Interactive lesson that includes didactic presentations, instruments to increase self-awareness, case studies, video vignettes and discussions to assist in development of cross-cultural skills in practice	No instruction or training discussed	one-hour introductory sessions to full-day workshops, with sessions also conducted at a distance by videoconferencing	The CRASH model emphasizes core values or principles of cultural competence that underlie the more specific interview techniques presented by the LEARN model or by Kleinman's questions. The model provides specific measurable skill sets, behaviors, and strategies for increasing one's effectiveness in providing health care for diverse populations while minimizing culturally dysfunctional behaviors
Chircop, Edgecombe,	N/A	Use of Audiovisual (AV) teaching	AV materials can be accessed through library	Program Instructor was a	Combining AV materials with	The AV teaching tools did not meet any of the learning

Hayward, Ducey-Gilbert, & Sheppard-LeMoine, 2013[89]		tools to teach health and physical assessment	resources and/or a web-based format to teach assessment skills in various geographic locations for most schools. Most schools use publisher-produced videos that accompanied a physical assessment textbook Use online video clips to show students	health professional, and they did not have formal training	practice sessions (though does not specify the frequency of practice sessions)	objectives
Chudley, Skelton, Wall, & Jones, 2007[86]	N/A	Determine if participants' attitudes towards cross-cultural communication changed as a result of the course	Role-play, discussion, lecture, use of ice-breaking activities	Program facilitators, health professionals that have been trained in the program	One-day cultural course that has 2 ice-breaking activities that last an hour. 2, 45-minute role-play session. 1, 30-minute listening exercise and a hour long discussion session	The course is effective to improve participants' confidence in consulting with parents from another culture; the course also has improved non-UK trained doctors' confidence than UK-trained doctors
Ciesielka, Schumacher, Conway, & Penrose, 2005 [83]	LEARN model	Reduce disparities in health, and to increase the enrollment of students from under-represented racial backgrounds	Clinical practice, reflection, presentations, cultural service trip to provide free services	Faculty with no specific training in cultural care	Culturally-focused curriculum; 600 hours in total, 2 semesters long, and met weekly	A new model other than the LEARN model was proposed: The Process of Cultural Competencies in the Delivery of Health Care Services as the study deems it more appropriate for cultural diversity education; it views cultural competence as an ongoing learning process
Cox et al., 2006[52]	I CARE tool (Injury, Communication, Access to care, Resources, and Emotional well-being)	Improving cultural awareness of the underserved in two formats: 1) faculty led and 2) web based	In person format: use of readings, clinical rotation, role-play, discussion of life experiences, receive peer and faculty feedback, go through pre- and post-clerkship training. Web-based format online	Faculty; trained in information prior to disseminating educational materials	Divided into two groups: lectures or web-based sessions, 36 weeks long, meet 2 hours per week, 9 months	Faculty-led and web-based curricula prove to equally improve student knowledge, attitudes, and skills about caring for the underserved

			videos, get a 15 minute training of online items			
Cross, Brennan, Cotter, & Watts, 2008[92]	N/A	Utilize multiple approaches to provide information on different culture and increase awareness of complex culture issues	Seminar and clinical practicum, online self-assessment, case studies, films and videos, group discussions, use of personal experiences, prepare 2 clinical case scenarios	Faculty; training not explicitly stated	3 hours a session - and only explicitly point out how this course should be implemented throughout 2 years of the program	Preliminary Online Cultural Self-Assessment, looking at culturally awareness, shows that the students who have been trained in the program perform better than those who have not been trained
Cuellar, Brennan, Vito, & de Leon Siantz, 2008[45]	Blueprint for integration of cultural competence in the curriculum (BICCC)	Integrating cultural diversity concepts into existing courses throughout the curricula", and "creating international experience"	Guest lectures, discussions, case studies, role-play, community panels and interdisciplinary forums, debates on issues, community projects, videos and case scenarios	Faculty; no training	Not explicitly described	Through the post self-assessments, the students do not show statistical significant improvements
Cushman et al., 2015[107]	N/A	A meaningful, structured environment to explore issues of culture, power, privilege, and social justice"	Use of films (first do no harm), discussions	Faculty; no training explained but required to tie information to clinical practice	3 sessions, once in the first week of school and 2 optional at the end of the semester, workshop format lasting 8 hours	The outcome is not yet clear as no pre and post assessment was done in this case study
de Leon Siantz, 2008[90]	N/A	Use a business corporate model to design diversity leadership programs	Class speaker series, students develop collaborative activities, leadership class not explicitly designed	Led by leadership and health policy experts	Week long leadership class , with 2 speakers per day	N/A
Delgado et al., 2013[82]	Campinha-Bacote	To promote the understanding of cultural competence and demonstrate impact on quality of care	Cultural simulation (The clown cultureTM), debriefing sessions, lecture with questions, discuss personal experiences, card-sorting exercises as reflection	Instructors who were part of" the overall cultural competence curriculum design and development" taught the class	An hour long, one time class	The increase in cultural confidence was documented after the one-hour course showed to not statistically significant and the self-assessment tool's accuracy is doubted

Dewald, 2010[55]	Campinha-Bacote	Provide faculty training on cultural competence through strategies to promote provide diverse nursing education	Active learning activities, completed assessments, role-play patient counseling sessions, write out patient materials, and discussions	Not specified	6 sessions scattered throughout their semester	Students gained an increase in knowledge from the active-learning activities. Study does not mention anything about skills or attitudes
Agness-Whittaker & Macedo, 2016[40]	Illness Explanatory Model	Exam various culturally based health belief systems, explore personal cultural health beliefs, relate a model to cross-cultural interviewing and demonstrate two strategies for facilitating cross-cultural communication and therapeutic planning with geriatric population	Prior to the in-session training, participants complete pre-session activities including cultural self-assessment survey and an optional online pre-reading. During the session, activities included presentations, self-reflection, video vignettes, discussion groups, role-play exercises. Recommended no less than 10 participants and no more than 30.	Faculty facilitators are provided guides and resources to assist with delivering the intervention including specific notes and questions to ask. The article provides suggestions for how to successfully run the session but do not provide training.	1 session for 90-120 minutes.	They assessment of the course is taken immediately following the course to ensure the experience is fresh in their minds. The outcome data was taken from only pharmacy students. They found only half notes an increased understanding of cultural difference and over 2/3 of the class feel their communication skill improved. All outcomes assessed via self-report and changes attitudes and awareness. More of a general introduction
Bakhai, Shields, Barone, Sanders & Fields, 2016[54]	N/A	Working on critical communication skills for third and fourth year medical students to use when caring and working for sexual and gender minority youth.	General idea is to use an "open, reflection-based, small-group format." Pre-course assignments: complete pre-readings. During course: guest speakers lecture, debrief/discussion. Post-session: evaluation and course evaluation	two faculty members, one with an expertise in sexual and gender minority youth and one was the pediatric clerkship director	2-hour active learning session delivered 4 weeks into an 8 week required pediatric clerkship.	Found a significant change in knowledge of topic, increased confidence to initiate important conversations, increased awareness to key cultural skills associated with caring for sexual and gender minority youth. Limitations: All provided items are introductory and are a part of a larger curriculum to build upon the evaluated session. Also all information was self-report knowledge and did not

						test skill development in a structured way.
Kutscher & Boutin-Foster, 2016 [75]	safe-space model, cultural humility	Inform students of the specific obstacles by allowing them to hear from community organizations representing diverse populations	General idea is to use an "open, reflection-based, small-group format." Pre-course assignments: complete pre-readings. During course: guest speakers lecture, debrief/discussion. Post-session: evaluation and course evaluation	Requires a lot of planning prior to running the course and during the course. A student led the course who has had prior experience in facilitating discussions	5-week, elective course occurring once a week for 2 hours	Found to increase cultural awareness and attitudes towards medical students approach individuals from diverse communities
Rogers, Morris, Hook & Havyer, 2016 [41]	Social model	Provide an opportunity for medical students to reflect on their own experience with disability and learn about historical and cultural contexts of disabilities	Pre-work assignments: fill out 9 questions survey with open-text questions to use as part of discussion during in-person. Session: lecture with use of PowerPoint slides, community member panel discussion, small group discussion and large group discussion, debrief. Post-curriculum questionnaire	Faculty with experience in disability studies	A single 2.5-hour session part of a public health course	There were no discussions on the outcomes involving any changes in awareness, knowledge, attitudes or skills. The outcomes of the session brought about a rich discussion that was well perceived by the students involved.
Bakhai, et al., 2016 [76]	N/A	An introduction course focusing on understanding general terminology for sexual and gender minority youth and developing skills to take an inclusive sexual history.	A 3-part module- an e-lecture, standardized patient activity and debrief. Pre-work assignment: e-lecture for didactic slides and provided documents of key concepts and sample questions to review. Session: standardized patient completed in groups of 3 for 15 minutes and 10 minutes feedback. Concluded with debrief with two facilitators. After	No training was explicitly noted	15 minutes prior to class and estimated 1 hour within person	Outcomes included an increase in awareness about sexual and gender minority youth and improved confidence in working with a variety of patients. Students report needing additionally support and time to develop skills to take an inclusive sexual history of people from various backgrounds. Limitations: This is an introductory course that needs to be supplemented with

			session: online Post-survey			additional course information.
Lee, Loeb & Butterfield, 2014 [42]	Center for Disease Control 5 "P"s model	A session focusing on sexual history taking with the LGBT community	One time session with a large group session and small group sessions with standardized patients. An evaluation occurs immediately following the session.	Training occurred 30 minutes prior to start of session; use of facilitator guide with pre-readings to assist with guiding the sessions	40 minutes large group and 1 hour of small group	Completed a communication need assessment, which found a perceived improvement in confidence and performance for sexual history interviewing.
Underman, Giffort, Hyderi & Hirshfield, 2016 [43]	N/A	An evaluation of a standardized patient case focusing on communication challenges specific to transgender patients.	Use of a standardized patient, small group discussion with handouts on terminology related to LGBT and post-course evaluation	No formal training occurred due to the knowledge and experience of the faculty members, authors strongly encourage other schools to train faculty if using their provided materials	Half-day workshop; 2 hours for standardized patient cases and 1 hour debriefing session.	Found through a survey students perceived an increase in skills and knowledge when working with transgender patients. The information did not assess weather the standardized patient cases changed behaviors in their practice to impact future outcomes for LGBT patients.
Brooks, Rougas, & George, 2016 [100]	Structural competency framework	A single session focusing on understanding impact of racism and bias on medicine to develop ways to address them within a clinical setting	Small group case-based sessions and suggested pre-readings ("when doctors discriminate" from Black Man in A white Coat and "The New Racism" from Racism Without Racists). Students filled out a post-session feedback	Faculty selected based on completion of pre-session work including going through the facilitator's guide (readings) and specific cited articles	During 3- week clerkship course for 1 hour sessions	Received positive feedback from students, however, mentioned that a single session will not maintain critical thinking on racism and perceived bias in medical practice. They found this as a starting point for curriculum developers

Note. Table includes articles pertaining to student or health professional and faculty specific interventions. Campinha-Bacote = Culturally competent model of care; Giger and Davidhizar = Transcultural Assessment Model; Purnell= Model for Cultural Competence; Leininger's= Grand theory of cultural care diversity and universality; SP= use of standardized patients; LCME= Liaison Committee on Medical Education; OSCE= use of objective structured clinical examination; *Authors did not provide a break down of ADHERE acronym within the article.