

NO LONGER INVISIBLE: A SCOPING REVIEW OF CULTURAL COMPETENCE CONTENT IN UNITED STATES MEDICAL EDUCATION

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ABSTRACT

Introduction: Cultural competence curricula (CCC) in medical schools are imperative for preparing future physicians to improve quality of care for the variety of patients they will encounter. The objective of this review was to determine whether historically invisible health disparities in the United States have been adequately represented in the evolving array of CCC content.

Methods: This scoping review analyzed 77 papers published between 1989-2023 describing LCME-mandated CCC in U.S. medical schools. Data was categorized by curricular inclusion of seven Identity Groups and nine Cultural Concepts.

Results: Findings reveal that racial/ethnic groups dominated the content, appearing in 77% of programs, while LGBT+, disability, religious, socioeconomic, gender, and local groups were represented in fewer than 50% of curricula. After 2012, the percentage of programs including social concepts such as systemic bias, individual bias, and social determinants of health increased by at least 20%.

Conclusions: The underrepresentation of LGBT+, disability, religious, socioeconomic, gender, and local groups relative to racial/ethnic groups suggests programs prioritized teaching concepts applied to race/ethnicity and focused less on other cultural groups. After 2012, the substantial increase in included social concepts without change in the distribution of included cultural

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groups suggests programs maintained representation of identity groups while attempting to address systemic issues for groups already represented in CCC content. Incorporating intersectionality through a “dimensions of identities” approach may allow students to extend systemic concepts to the less visible groups in need of conversation about their disparities.

Keywords: undergraduate medical education, cultural competence, healthcare disparities, culturally competent care, cultural humility

INTRODUCTION

CULTURAL COMPETENCE AS IT STANDS

Cultural competence curricula (CCC), a concept originating in 1989, gained traction following the Institute of Medicine’s “Unequal Treatment” report, which documented health disparities and prompted new Liaison Committee on Medical Education (LCME) standards (Cai, 2016, Crosson et al., 2004). CCC aims to develop knowledge, skills, and attitudes for providing meaningful and appropriate care across cultures (Agency for Healthcare Research and Quality, 2023). Over time, the definition of culture within CCC has expanded significantly beyond ethnicity to encompass sex, gender, religion, disability status, and various social experiences. This evolution reflects growing recognition that cultural identities are multifaceted and dynamic. Consequently, newer terminology such as ‘cultural humility’ has emerged, emphasizing ongoing growth rather than ‘cultural competence,’ which implies achieving a final proficiency. This conceptual expansion has led to diverse approaches in CCC development, implementation, and content emphasis across institutions (Thew et al., 2012, Griswold et al., 2007, DallaPiazza et al., 2020, Lewis and Prunuske, 2017).

THE NEED FOR CULTURAL COMPETENCE IN MEDICAL SCHOOLS

Across the world, every country has various communities with unique experiences that may shape how they communicate or interact with health providers. Providing education on how to best provide care to these communities is essential for optimizing health outcomes.

The United States (U.S.) is a nation of diverse populations, each with unique histories and interdependent influences that can lead to health disparities along cultural lines. These disparities have historically remained ‘invisible’ in healthcare discourse due to a paucity of data collection, public conversation, and institutional attention (National Academies of Sciences, Engineering, and Medicine, et al., 2017). This invisibility enables systemic problems to remain hidden. Many cultural minority groups have disproportionately negative health

outcomes that stem from systemic issues rooted in medical mistrust, language barriers, access to life-saving procedures, increased vaccine hesitancy, and structural stigma (Taweh and Moreira, 2023, Gonzales et al., 2021, Walker et al., 2016, Amjad et al., 2019, Hibbert et al., 2021, Diamond et al., 2019, Pandey et al., 2021, Eiser and Ellis, 2007, Ferdinand, 2021, Geiger, 2001, Washington, 2008, Terui, 2017). For example, experimentation on enslaved people's bodies has led to medical mistrust in the Black community, and stigma-related barriers to care have worsened mental health outcomes and reduced preventive care utilization in LGBT+ patients (Smedley, et al., 2001, Adelson et al., 2021, Crenitte et al., 2023). Though previously invisible, these disparities highlight the need for focused educational activities and institutional attention that emphasize the factors that impact the health of underserved groups, as well as strategies to address them in clinical practice. Implementing CCC that effectively instills cultural competence into the population of new medical providers may improve quality of care regardless of the cultural identity of the patient or the physician. CCC can also provide an environment that cultivates the critical thinking and personal enrichment necessary among medical professionals to bring attention to disparities in the public health and policy communities. In this way, CCC has the potential to improve cross-cultural care and maximize both trust and equitable treatment for patients of any cultural group(s) (Ferdinand, 2021).

REVIEW OBJECTIVE AND QUESTION

For this review, we sought to determine if the CCC in United States medical schools reflects the scope and diversity of existing cultural groups historically at risk for health disparities as defined by the National Institutes of Health (National Institute of Minority Health and Disparities, 2025). We focused our review on racial and ethnic minority groups, people with lower socioeconomic status (SES), sexual and gender minority (SGM) groups, and people with disabilities. Religion and local communities are also cultural components of a region that can lead to disparities and thus were included (National Academies of Sciences, Engineering, and Medicine, et al., 2017, Lu and Yang, 2022, Feinberg et al., 2021). Overall, the objective of this study was to determine the content being covered by CCC in U.S. medical schools and whether it covers all groups at risk of health disparities identified above.

While there is past research reviewing various CCC, they either lack focus on content areas or review fewer schools using only the Tool for Assessing Cultural Competence Training (TACCT) for inclusion criteria (Li et al., 2023, Jernigan et al., 2016, Association of American Medical Colleges, 2015). This study is unique because it compares more expanded identity groups and creates a more diverse coding system, so that programs not using the TACCT can be included. The TACCT currently recognizes "race/ethnicity/culture" as the acknowledgement of any racial/ethnic/cultural group in a curriculum without

comparing inclusion of different groups or discussing intersectionality, which this study discusses in depth. Additionally, this study compares CCC content in programs between two time periods, before and after the 2012 report by the Association of American Medical Colleges (AAMC) that expanded their definition of “cultural diversity” (Berger and Miller, 2021, Primary Care Collaborative, 2012). Furthermore, the volume of programs represented in this review helps provide a deeper insight on the state of CCC content being covered in U.S. medical schools.

METHODS

INCLUSION AND EXCLUSION CRITERIA

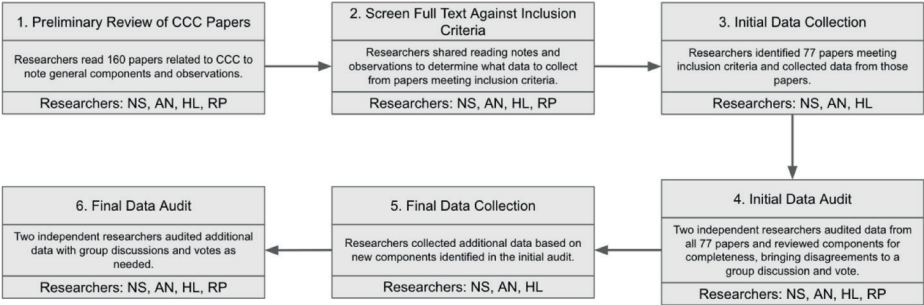
All papers included in the study described CCC programs implemented at M.D. (Doctor of Medicine) schools in the United States and detailed the content covered in their program. Thus, papers that only focused on teaching methods or theoretical frameworks were not included. Only U.S. M.D. schools were included since they follow LCME guidelines on the implementation of CCC. Additionally, due to limited translation resources, only papers written in English were included. All papers were written between 1989 and 2023. The cutoff year was 1989 since that is when the term Cultural Competence was coined (Cross, 1989).

SEARCH STRATEGY

Initially, a preliminary screening of the OVID, PubMed, Google Scholar, and Scopus databases was performed. From this preliminary screening, 160 papers were identified with the latest review in March 2023. Search terms for finding articles were included but not limited to various combinations of the following: “cultural humility curriculum,” “medical education,” “cultural humility,” “medical school,” “cultural competence curriculum,” “cross cultural education,” “curriculum,” “training,” “program,” “cultural competence,” “multicultural curriculum,” and “cultural education.” These search terms contributed to finding our papers.

During this process, reviewers individually recorded observations including the major topic of the paper, the authors’ definition of cultural competence, and the reviewers’ impression of what was present in content. Then, the reviewers met, discussed the patterns observed, and defined codes based on common content areas (Table 2). The defined content codes were then used to collect data from the included papers. The overall search strategy methodology is outlined in Figure 1.

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*Researchers conferred with advisor(s) (LC, SS) between steps to supervise process

Figure 1. Process for conducting search strategy and data collection

DATA ANALYSIS AND SYNTHESIS

The codes identified after the preliminary paper review were grouped into domains. Domains were categorized by the 3 overarching aspects of CCC content as identified by researcher discussion. The Content Format domain refers to the breadth and focal points of topics included. The Identity Groups domain refers to the cultural context of different forms of status assigned to individuals. The Concepts domain encompasses the interpersonal, community, and policy impacts on those individuals.

These domains were further extracted into subdomains defined by the operational definitions seen in Table 2. The operational definitions are the paraphrased contexts and spectra of each term as pertains to CCC and agreed by the research team. The Content Format subdomains include Comprehensive and Focused. The Identity Groups subdomains include Racial/Ethnic groups, Local Community, Socioeconomic Status, Gender, Disabilities, Religion, and LGBTQ+ Communities. The Identity Groups subdomains include Application to Real Life, Cross-Cultural Communication, Social Determinants of Health, Background Concepts, Individual Stereotyping/Bias, Systemic Bias, Contrasting Health Beliefs, Cultural Traditions, and Cultural Humility.

The 77 papers that met inclusion criteria were reviewed a second time by two separate researchers to determine which codes could be found in each paper. If there was disagreement between the two reviewers, the data point was brought to discussion with a third reviewer. This data, summarized in Appendix I, was then analyzed with descriptive statistics and graphical representations of the data points.

RESULTS

CONTENT SUMMARY

Analysis of 77 cultural competence curricula that met inclusion criteria revealed striking disparities in both identity representation and conceptual

Table 1. Prevalence of content subdomains described in 77 cultural competence curricula implemented in U.S. medical schools between 1994 and 2023

Domain	Subdomain	N (out of 77)	%
Content Format	Comprehensive	47	61.0
	Focused	45	58.4
Identity Groups	Racial/ethnic groups	59	76.6
	Local community	29	37.7
	Socioeconomic status	26	33.8
	Gender	25	32.5
	Disabilities	25	32.5
	Religion	21	27.3
	LGBTQ+ communities	17	22.1
Cultural Concepts	Application to real life	68	88.3
	Cross-cultural communication	67	87.0
	Social determinants of health	58	75.3
	Background concepts	56	72.7
	Individual stereotyping/bias	54	70.1
	Systemic bias	41	53.2
	Contrasting health beliefs	32	41.6
	Cultural traditions	29	37.7
	Cultural humility	25	32.5

focus. Generally, we considered differences of >10% to be meaningful for this analysis. Racial/Ethnic Groups dominated content (77% of curricula), while other identities—including LGBTQ+ Communities (22%), Religion (27%), and Disability (33%)—received substantially less attention (Table 1). Concurrently, practical approaches to cultural competence prevailed, with Application to Real-Life Scenarios (88%) and Cross-Cultural Communication (87%) far outpacing concepts like Cultural Humility (33%) and Cultural Traditions (38%). These patterns suggest a potential misalignment between cultural competence education and the diverse needs of patient populations.

HISTORICAL TRENDS

In 2012, the AAMC expanded its language regarding cultural diversity to include “language, sexual identity, age, race, ethnicity, disability, socioeconomics, and education” (Berger and Miller, 2021, Primary Care Collaborative, 2012). This shift created a natural experiment to examine how CCC content evolved in response to broadened institutional guidance. Surprisingly, this refined language did not translate to substantial changes in

identity group representation (Figure 2). The inclusion of racial/ethnic groups and local communities showed a modest decline (9%), while representation of other identity groups increased only marginally ($\leq 4\%$). This stability suggests that the AAMC’s expanded position had minimal impact on which cultural groups were included in curricula, revealing a potential gap between national recognition and educational implementation.

Data showed a more appreciable change in the teaching of Cultural Concepts, with a 20% decrease in curricula including Cultural Traditions and Contrasting Health Beliefs after 2012 (Figure 3). Meanwhile, the prevalence of Systemic Bias, Individual Bias, and Social Determinants each rose by at least 20%—Systemic Bias had a staggering increase of 35%. This dramatic conceptual evolution stands in contrast to the relatively stable identity representation.

CURRENT OVERALL PATTERNS

During our analysis, we identified seven Identity Groups that were commonly present in curricula: Racial/Ethnic Groups, Local Community, Socioeconomic Status (SES), Gender, Disabilities, Religion, and LGBTQ+ Communities. For further clarification, Local Community refers to the inclusion of education related to a specific surrounding population. In Kitzes et al. (2007), the University of New Mexico School of Medicine included the Local Communities of New Mexico’s rural, Hispanic, and American Indian populations by emphasizing their health needs in their curriculum (Kitzes et al., 2007).

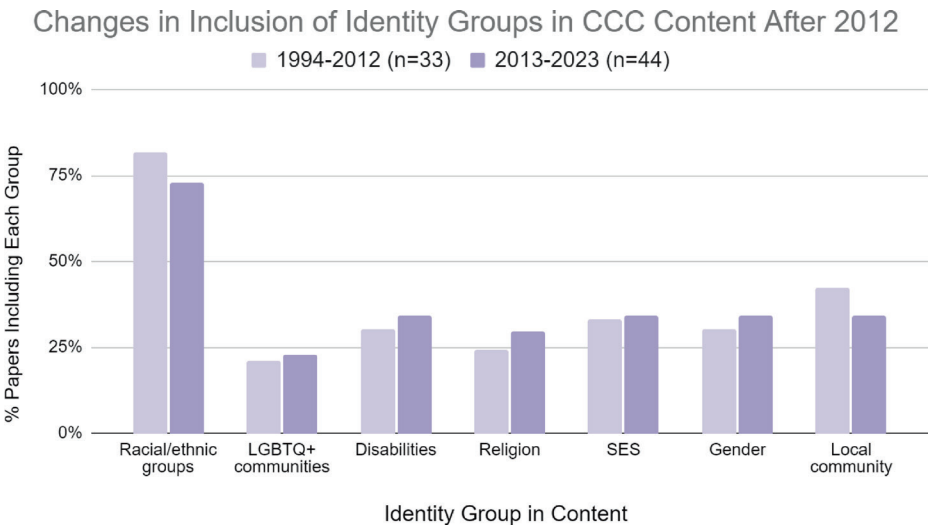


Figure 2. Inclusion of identity groups in CCC content across papers published from 1994 to 2012 and from 2013 to 2023

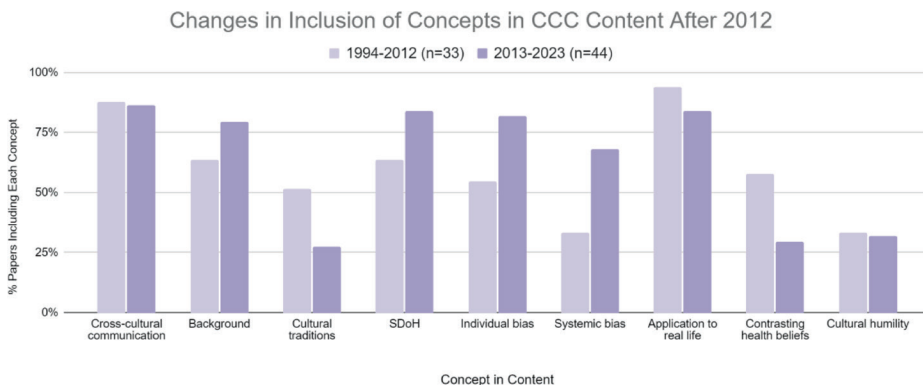


Figure 3. Inclusion of cultural concepts in CCC content across papers published from 1994 to 2012 and from 2013 to 2023

Socioeconomic Status in curricula including that of Geisel School of Medicine at Dartmouth touched on how social elements and financial barriers affect patient care (Coria et al., 2013). When it came to Religion, curricula such as the one described in Gupta et al. (2020) taught about the impact of religious and spiritual beliefs or the lack thereof on healthcare, in this example by including a simulation of a Muslim patient considering refusing intravenous contrast dye to be compliant with fasting for Ramadan (Gupta et al., 2020).

Racial/Ethnic Groups emerged as the overwhelmingly dominant cultural group in CCC content, appearing in 77% of programs, followed by Local Community content in 38% (Table 1). The remaining identity groups—Gender, Disabilities, Religion, and LGBTQ+ Communities—each appeared in fewer than one-third of curricula, revealing a substantial gap in representation between racial/ethnic content and other identity groups.

In addition to Identity Groups, we also identified nine Cultural Concepts that programs commonly taught in relation to those groups, including Application to Real Life, Cross-Cultural Communication, Social Determinants of Health, Background Concepts, Individual Stereotyping/Bias, Systemic Bias, Contrasting Health Beliefs, Cultural Traditions, and Cultural Humility. Schools such as New Jersey Medical School incorporated Application to Real Life by introducing problem solving skills in in-person mock scenarios, Cross-Cultural Communication with mnemonics such as ETHNIC to elicit patient perspectives and unique treatment regimens, and Cultural Traditions by exploring healing practices such as folk remedies upheld by specific cultural groups (Crosson et al., 2004). Social Determinants of Health, or the myriad living conditions that influence one's wellbeing, appeared in Denizard-Thompson et al. (2021) with modules covering “implicit bias in pain, women and infant health, environment/discharge planning, food insecurity, poverty/access to care, social

network, transportation, housing, and educational disparities,” and in many more papers with similar examples (Denizard-Thompson et al., 2021).

Cultural Groups, Applications to Real Life Scenarios and Cross-Cultural Communication stood out, featuring in over 75% of curricula (Table 1). In addition, over half of curricula involved Social Determinants of Health, Background Concepts, and Individual and Systemic Bias. Contrasting Health Beliefs, Cultural Traditions, and Cultural Humility were found in less than half of the identified curricula (Table 1).

PROGRAM FORMAT DIFFERENCES

For our analysis, we defined papers by Content Format as either Focused or Comprehensive. Focused programs were those with a stated purpose that revolved solely around one Cultural Group, while Comprehensive programs involved multiple groups. The Introduction to Medicine and Society course at Perelman School of Medicine was deemed comprehensive as it involved a multidimensional discussion of SES, race, gender, and sexual orientation (Dao et al., 2017). One of the “Focused” curricula, the Deaf Culture Applied Anatomy session at Morehouse School of Medicine, was geared towards illuminating the challenges and perspectives of persons living with Disabilities (Greene and Scott, 2021).

Based on the subdomains of Content Format defined in Table 2, 61% of curricula were Comprehensive and 58% were Focused (Table 1). Twenty-one percent of curricula met criteria for both Comprehensive and Focused (See Appendix I).

When stratifying by content format, both Focused and Comprehensive program types consistently prioritized race/ethnicity. Sixty-seven percent of curricula with a specific focus were centered around Racial/Ethnic Groups (Figure 4). Focused programs were more likely to involve Disabilities or a Local Community, which may indicate a preference for more in-depth instruction for those groups. Some Identity Groups had more balanced representation by content format, such as Religion and Socioeconomic Status. Critical identity groups remain underrepresented regardless of program approach: fewer than 40% of programs were found to discuss Disabilities, Religion, and LGBTQ+ Communities regardless of Comprehensive or Focused format (Figure 4).

Analysis of Focused and Comprehensive Curricula revealed more similarities than differences when it came to Cultural Concepts; Application to Real Life, Cross-Cultural Communication, Social Determinants of Health, Individual Bias, Systemic Bias, and Cultural Traditions all differed by 10% or less (Figure 5). However, contrast did still emerge, as in the jump from Focused to Comprehensive curricula for Contrasting Health Beliefs (+18%) and Cultural Humility (+21%).

Table 2. Operational definitions of CCC content subdomains used for data collection

Content Subdomain	Operational Definition	Guiding Examples
Comprehensive	Presence of intersectionality and/or part of a holistic curriculum (Varsik and Gorochovskij, 2023). Or teaching everything important within a discipline by selecting the most important concepts and creating a “knowledge menu” (Renzulli, 2004)	Sexuality and Gender African American socioeconomic status
Focused	The stated purpose of curriculum/course focuses on one or more specific aspect(s)	Refugee African-American Diabetes Sexuality and Gender
Racial/Ethnic Groups	Discusses the race/ethnicity of individuals and/or racial/ethnic groups and/or discussion of languages (Lewis et al., 2023)	Case centered on an Arab Muslim woman
Local Community	Highlights/focuses on a particular group of the local population surrounding the school that contributes to the social fabric of the geographic area	International refugees Local immigrants New Mexico's Native American population
Socioeconomic Status	Discusses socioeconomic class and/or financial barriers related to the social standing of an individual or group measured by occupation, income, and education (Shavers, 2007)	Case exploring medication non-adherence partly due to economic barriers to care
Gender	The continua of gender identity and/or gender expression as relevant to the impact on a person's care (Oda and Stiehl, 2025, Cameron et al., 2010)	Case centered on an Arab Muslim woman
Disabilities	“Active or residual impairments that result from disease and injury, as well as the physical, mental, or emotional functional limitations or difficulties a person has as a result of the residual impairments”(Altman, 2014)	Chronic health conditions, impairments Substance abuse Chronic pain
Religion	Discussion of a personalized or institutionalized set of religious attitudes, faith, spirituality, atheism, and/or agnosticism (Koenig, 2012)	Case centered on an Arab Muslim woman
LGBTQ+ Communities	Discusses non-heteronormative sexual orientation (Oda and Stiehl, 2025)	
Application to Real Life	Teaching students how to practically use knowledge, skills, and attitudes in everyday situations either within the community or in clinical practice	Clinical scenarios Case studies Role play OSCEs Teaching advocacy application in community Reflection on cultural competence patient interaction

(Continued)

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Table 2. (Continued)

Content Subdomain	Operational Definition	Guiding Examples
Cross-Cultural Communication	Communication with people about their lived experience that differs from yours (Ladha et al., 2018)	Mention of a model for communication: LEARN model, ETHNIC model Language barrier
Social Determinants of Health	“The conditions in which people are born, grow, live, work, and age [including] factors like [economic stability], education, neighborhood and physical environment, employment, and social support networks, and access to health care” (Drake and Rudowitz, 2022)	
Background Concepts	Historical/sociological background of X cultural concept (Lewis, et al., 2023, National Academies of Sciences, Engineering, and Medicine, et al., 2023)	WHAT is racism? WHAT is xyz religion? WHAT is the history of racism?
Individual Stereotyping/ Bias	Any discussions/acknowledgement of interpersonal and/or intrapersonal bias and/or stereotyping	
Systemic Bias	Discussions/acknowledgment of bias in policy, communities, or institutions (National Academies of Sciences, Engineering, and Medicine, et al., 2023)	
Contrasting Health Beliefs	Differing opinions on management of health (Russo et al., 2019)	Discussion of whether to use cochlear implants Western vs. Eastern and/or traditional medicine Alternative and/or herbal medicine
Cultural Traditions	Teaching/exploring examples/history of practices commonly or traditionally upheld by members of a cultural group	Alternative medicine that discusses cultural origins
Cultural Humility	Engaging in lifelong learning/continual self-reflection (Yeager and Bauer-Wu, 2013, Juarez et al., 2006)	
Region	Location, based on U.S. Census Region, of the study or of the school which the authors are affiliated with. Regions include West, Midwest, Northeast, or South (United States Census Bureau, 2021)	West = AK, HI, WA, OR, CA, MT, ID, WY, NV, UT, CO, AZ, NM Midwest = ND, SD, MN, NE, IA, KS, MO, WI, MI, IL, IN, OH Northeast = NY, PA, NJ, VT, NH, ME, MA, CT, RI South = TX, OK, AR, LA, KY, TN, MS, AL, WV, VA, MD, DE, NC, SC, GA, FL

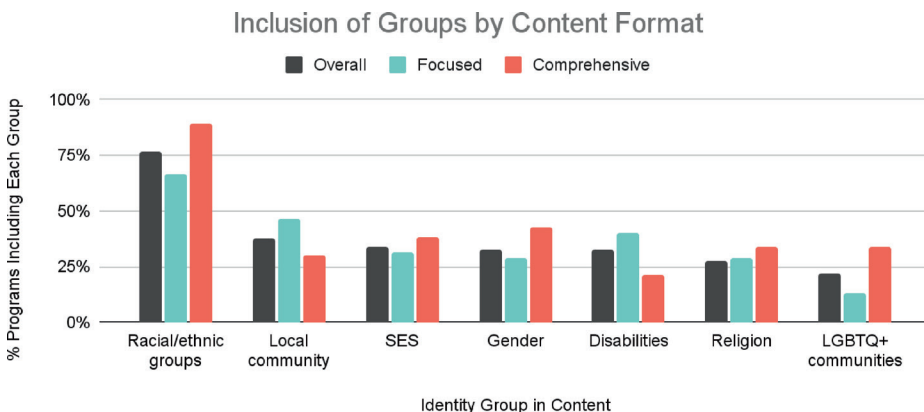


Figure 4. Prevalence of identity groups included in CCC content of comprehensive versus focused programs

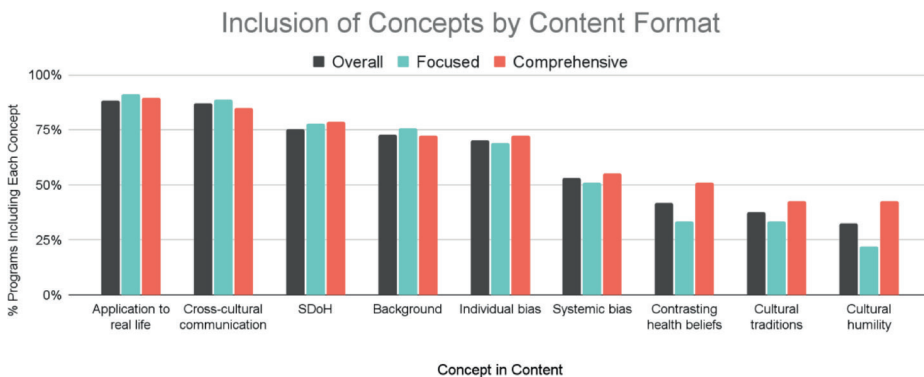


Figure 5. Prevalence of cultural concepts included in CCC content of comprehensive versus focused programs

U.S. REGIONAL VARIATIONS

The following data from regions defined in Table 2 is not representative of all cultural competence curricula that exist within these U.S. regions. Rather, the data are based on explicit statements observed in available published papers that met inclusion criteria.

Regional analysis revealed both consistent patterns and striking variations in how different areas of the U.S. approach identity representation (Figure 6). Race/ethnicity maintained its dominance across all regions, appearing with similar frequency regardless of geography—an indication of its central position in cultural competence education nationwide. Similarly, religion showed minimal regional variation.

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Beyond these constants, however, distinctive regional patterns emerged. The Midwest stood out as the most inclusive region for multiple marginalized groups, with substantially higher representation of Socioeconomic Status, Gender, Disabilities, and LGBTQ+ Communities compared to other regions. This comprehensive approach in Midwestern programs contrasts sharply with more selective patterns elsewhere—Western programs showed notably less attention to local communities and LGBTQ+ populations, while Northeastern curricula had the lowest inclusion of disability content. Southern programs, interestingly, emphasized local community contexts more than other regions.

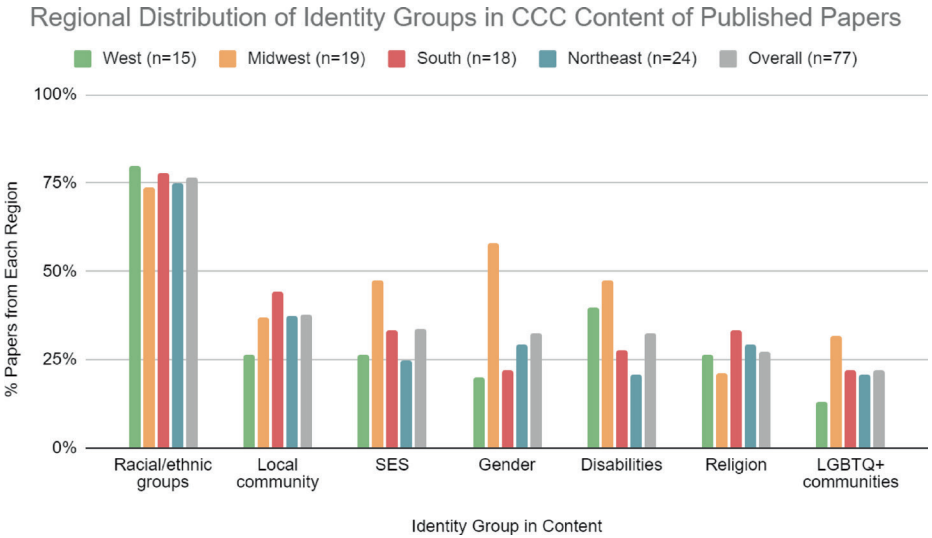


Figure 6. Inclusion of identity groups in CCC content across papers published in different regions of the U.S

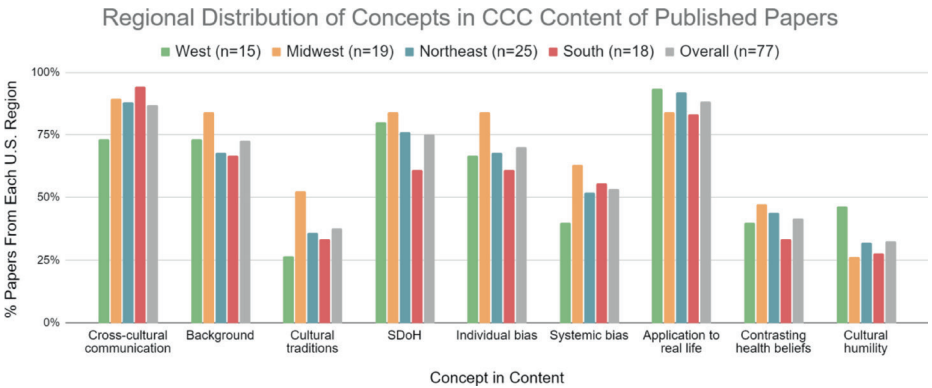


Figure 7. Inclusion of cultural concepts in CCC content across papers published in different regions of the U.S

These patterns suggest regional priorities that may reflect local demographics, institutional values, or regional healthcare challenges.

Regional patterns persisted with Cultural Concepts in addition to Identity Groups. Again, Midwestern programs had the highest inclusion of elements other regions lacked, such as Cultural Traditions and Contrasting Health Beliefs, as well as the more popular Background, Social Determinants of Health, and Individual and Systemic Bias (Figure 7). The Northeast and South consistently fell in the middle of the pack, while the West lagged behind in Cross-Cultural Communication and Systemic Bias and outpaced the other regions in Application to Real Life and Cultural Humility. These findings emphasize the Midwestern trend toward comprehensive curricula, where Western programs might instead take a targeted approach to Cultural Concepts.

DISCUSSION

SUMMARY OF REVIEW FINDINGS

This scoping review reveals a significant gap between the current needs of diverse populations in U.S. healthcare and the content priorities in cultural competence curricula (CCC). Our findings demonstrate that while CCC has evolved to increasingly address systemic issues underlying disparities, it remains disproportionately focused on racial/ethnic groups (77% of programs) while underrepresenting other populations with documented health disparities. This imbalance persists despite national recognition of healthcare inequities affecting LGBTQ+ communities (22%), people with disabilities (33%), religious minorities (27%), and those with lower socioeconomic status (34%).

Additionally, our temporal analysis shows a promising post-2012 shift toward including systemic concepts like structural bias (+35%) and social determinants of health (+20%), indicating growing recognition that cultural competence extends beyond interpersonal factors to institutional and policy-level influences. These findings suggest that while U.S. medical education has made progress in preparing future physicians to address certain disparities, substantial opportunities remain to create more comprehensive curricula that reflect the multidimensional nature of cultural identity and health inequity.

CCC CONTENT AND THE PRIORITIES OF U.S. MEDICAL SCHOOLS

Our findings reveal a consistent prioritization of race/ethnicity teaching (77% of curricula) while most programs neglect gender, disability, religion, LGBTQ+, and socioeconomic status. This emphasis aligns with 2024 Census data indicating over 40% of the U.S. population identifies as a racial minority (United States Census Bureau, 2024), making race/ethnicity more visible to

learners in clinical settings (National Academies of Sciences, Engineering, and Medicine, et al., 2017).

Groups such as LGBTQ+, disabled, and low SES populations fall outside the AAMC's definition of "underrepresented in medicine," potentially explaining their limited inclusion in CCC. Legislative barriers particularly affect LGBTQ+ content inclusion, further contributing to the deprioritization of these groups compared to race/ethnicity (Ogunyemi, 2020, American Civil Liberties Union, 2024).

Regarding conceptual priorities, Application to Real-Life Scenarios and Cross-Cultural Communication dominate curricula, while Cultural Humility appears less frequently—likely because it's a newer concept. The former approaches align with established scenario-based teaching methods already prevalent in medical education (Klement et al., 2016). Though both individual and systemic bias contribute to health disparities, individual bias receives greater emphasis in curricula (Eiser and Ellis, 2007, Ferdinand, 2021, Geiger, 2001, Terui, 2017, Adelson et al., 2021, Crenitte et al., 2023). This imbalance suggests curricula developers perceive interpersonal factors as more clinically relevant than systemic issues. While clinical practice revolves around interpersonal relationships where individual bias can influence patient care, systemic issues also impact patients' health outcomes (Eiser and Ellis, 2007, Ferdinand, 2021, Geiger, 2001, Terui, 2017, Adelson et al., 2021, Crenitte et al., 2023). In fact, some argue that interpersonal and individual factors impacting cultural competence trickle down from systemic root causes such as historical mistreatment (Berger and Miller, 2021, Varsik and Gorochevskij, 2023, Khoury et al., 2022, Hutchins et al., 2014).

CCC CONTENT BEFORE AND AFTER 2012

CCC has evolved alongside changing healthcare demographics over two decades, requiring curriculum developers to balance essential components with emerging needs. Our findings reveal two key patterns: (1) identity group distribution and application-focused teaching have remained consistent across time periods, with racial/ethnic content maintaining dominance despite demographic shifts; and (2) systemic concepts (systemic bias and social determinants of health) gained significant traction after 2012, coinciding with increased national attention to structural inequality (QQQ, RRR, SSS). This shift likely reflects growing visibility following heightened public discourse around disproportionate housing, education, employment, criminal justice, voter suppression, and Black Lives Matter (Dunivin et al., 2022, Francis and Wright-Rigueur, 2021).

REPRESENTATIVENESS AND QUALITY OF CCC CONTENT

Notable absences exist in CCC content despite official recognition of certain groups with health disparities. Rural health, though recognized by the AAMC as a group with significant disparities, was insufficiently represented in our review to warrant inclusion as a content category (National Institute of Minority Health and Disparities, 2025). This suggests disconnects between official recognition of disparities and their actual inclusion in curricula, indicating opportunities for more comprehensive coverage of rural health education in CCC programs.

Alternatively, simply including certain content does not guarantee that students receive a quality education in cultural competence or patient needs. Race/ethnicity has been included extensively in CCC since its inception in medical schools, yet there are still racial/ethnic health disparities related to the provision of healthcare that persist (National Academies of Sciences, Engineering, and Medicine, et al., 2017, Ferdinand, 2021). The quality of program content may benefit from allowing representatives of cultural minority groups to provide input on the accuracy and depth of material and to have a seat at the table when it comes to teaching cultural competence for their benefit.

IMPLICATIONS FOR FUTURE RESEARCH

As CCC continues to evolve, further research is necessary to track ongoing changes to curricula, evaluate their impact on student learning, and ensure that the progression of curricula aligns with patient needs. As programs update their curricula, they make meaningful contributions to the literature by continuing to publish papers describing the structure, content, and evaluation of their curricula in detail. However, there is a lack of literature studying the direct impact of CCC on health outcomes. Research on the relationship between CCC and patient experience and health outcomes can help bridge this gap.

SUGGESTIONS FOR CURRICULUM DEVELOPERS

While empowering racial/ethnic minorities remains essential, cultural representation must extend beyond these categories. Our results indicate systemic issues are increasingly taught for racial/ethnic groups—already well-represented in CCC—while identity categories such as culture, religion, age, disability status, sexuality, gender, and socioeconomic status receive less attention. Though comprehensively covering all existing identity groups presents a significant challenge for curriculum developers, future healthcare providers must be prepared to address numerous existing disparities (National Academies of Sciences, Engineering, and Medicine, et al., 2017, Berger and Miller, 2021).

The “dimensions of identity” framework offers a solution by teaching cultural concepts applicable across groups (Critical Media Project, 2019). This framework acknowledges intersectionality between major identity contributors—race, ethnicity, culture, religion, age, disability, sexuality, gender, and socioeconomic status. Curricula can teach fundamental history, systemic issues (including medical racism, historical mistreatment, ethno- and eurocentrism, and bias), and health disparities for these dimensions. This approach allows students to apply concepts across various identity groups they encounter while learning more about specific populations as courses permit.

Additionally, our review streamlines the process of comparing curricula by making detailed content models (Appendix I) easily accessible. For example, Midwestern programs more consistently include socioeconomic status, gender, disabilities, and LGBTQ+ content, while Western programs emphasize cultural humility. These regional variations likely reflect demographic differences, local health disparities, and institutional priorities. Curriculum developers can use these regional models to identify content gaps in their own programs and adapt successful approaches from regions addressing similar population needs.

LIMITATIONS

This review of CCC has limitations related to both the breadth of CCC content across U.S. medical schools and the distribution of content included. The recognition of existing cultural disparities, such as rural health, may be lacking across CCC literature leading to omission from our review. Also, there are many more medical schools and iterations of CCC at those schools than papers included, both because those schools may not have published any papers detailing their CCC and because the inclusion criteria for this review leaves out the multi-school papers that do so. Regarding included papers, data collected is limited to what was present in each paper at that moment in time and cannot account for curricular changes made since then. Finally, papers from certain schools and with certain types of CCC may have been more accessible via the search strategy than others. While the selected papers may not be exhaustive of all papers on CCC, we believe this review provides a widespread representation of U.S. content paradigms.

CONCLUSIONS

As of 2024, cultural competence content in U.S. medical education is attempting to address the needs and health disparities of racial and ethnic groups. Our review reveals that content addressing the needs of LGBTQ+, religious minority, working class, uninsured, disabled, elderly, and rural populations is limited in the literature. From a global perspective, teaching CCC content through a lens of “dimensions” and/or intersectionality will likely become increasingly needed as the influence of cross-cultural exchange increasingly impacts health

worldwide. Though unique nations operate in different systems, quality CCC can increasingly enhance the ability of international physicians-to-be to connect with differing patient populations and address inequities across those different systems. However, we cannot claim to be accurately addressing disparities without reviewing the quality and representation of CCC education and long-term effects on global healthcare systems. Not only do non-racial/ethnic cultural identities make significant contributions to each population, but they make significant contributions to the lived experience and uniqueness of each person. People are more than race and ethnicity, so we urge curriculum developers to give attention to the less visible health disparities and their systemic root causes. We ought to implement CCC that continue the conversation around these disparities so as to keep them unhidden. It is our responsibility as students, educators, and healthcare professionals to ensure that the health disparities we encounter are no longer invisible.

DECLARATIONS

As a scoping review, no participant consent was needed for this research paper. The authors declare that they have no competing interests. No specific funding was used for this project. Authors all contributed significantly to the development of this paper. We want to acknowledge Dr. Stephanie Stroeber for her dedicated contributions to this project.

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APPENDIX I - LITERATURE REVIEW SUMMARY TABLE**Table A1. Literature Review Findings for Cultural Competence Curriculum Content Described in Each of 77 Manuscripts Published between 1994 and 2023**

Authors	Year Published	U.S. Region	Content Format	Groups Included in Content	Concepts Included in Content
Nora, et al.	1994	Midwest	Focused	Racial/Ethnic Groups, SES, Gender, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs
Robins, et al.	1998	Midwest	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, Disabilities, Gender	Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs
Brainin-Rodriguez	2001	West	Focused	Racial/Ethnic Groups, LGBTQ+ Communities, Disabilities, SES, Gender	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Application to Real Life Scenarios
Godkin & Weinreb	2001	Northeast	Comprehensive, Focused	Racial/Ethnic Groups, SES, Local Community	Cross-Cultural Communication, Cultural Traditions, Social Determinants of Health, Application to Real Life Scenarios, Contrasting Health Beliefs
Albritton & Wagner	2002	South	Focused	Racial/Ethnic Groups, SES, Local Community	Cross-Cultural Communication, Application to Real Life Scenarios
Crandall, et al.	2003	South	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, Disabilities, SES, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Application to Real Life Scenarios, Contrasting Health Beliefs
Dogra & Karnik	2003	Midwest	Comprehensive	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Cultural Humility/Lifelong Learning
Crosson, et al.	2004	Northeast	Comprehensive	Racial/Ethnic Groups	Cross-Cultural Communication, Cultural Traditions, Individual Stereotyping/Bias, Application to Real Life Scenarios, Contrasting Health Beliefs
Blue, et al.	2005	South	Comprehensive, Focused	Racial/Ethnic Groups, Religion	Background Concepts, Cultural Traditions, Application to Real Life Scenarios, Contrasting Health Beliefs
Eddy & Robey	2005	Northeast	Focused	Disabilities, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Individual Stereotyping/Bias, Application to Real Life Scenarios, Contrasting Health Beliefs

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Table A1. (Continued)

Authors	Year Published	U.S. Region	Content Format	Groups Included in Content	Concepts Included in Content
Bussey-Jones, et al.	2005	South	Comprehensive	Racial/Ethnic Groups, Religion, SES	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Contrasting Health Beliefs
Lie, et al.	2006	West	Comprehensive	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Application to Real Life Scenarios, Contrasting Health Beliefs
Shapiro, et al.	2006	West	-	Racial/Ethnic Groups	Individual Stereotyping/Bias, Application to Real Life Scenarios
Carter, et al.	2006	South	Comprehensive, Focused	Racial/Ethnic Groups, Religion	Cross-Cultural Communication, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Griswold, et al.	2007	Northeast	Focused	Racial/Ethnic Groups, Religion, Gender, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Kitzes, et al.	2007	West	Comprehensive	Racial/Ethnic Groups, Disabilities, Gender, Local Community	Cross-Cultural Communication, Background Concepts, Individual Stereotyping/Bias, Application to Real Life Scenarios
Litzelman & Cottingham	2007	Midwest	Comprehensive	-	Cross-Cultural Communication, Background Concepts, Application to Real Life Scenarios, Cultural Humility/Lifelong Learning
Green, et al.	2007	Northeast	Comprehensive, Focused	Racial/Ethnic Groups, SES, Gender	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Turner & Farquhar	2008	Midwest	Focused	Disabilities, SES	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Application to Real Life Scenarios
Lypson, et al.	2008	Midwest	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, SES, Gender	Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Miller & Green	2009	Northeast	Comprehensive	Racial/Ethnic Groups, SES, Local Community	Cross-Cultural Communication, Cultural Traditions, Social Determinants of Health, Application to Real Life Scenarios, Contrasting Health Beliefs

(Continued)

Table A1. (Continued)

Authors	Year Published	U.S. Region	Content Format	Groups Included in Content	Concepts Included in Content
Betancourt & Cervantes	2009	Northeast	Comprehensive	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Symons, et al.	2009	Northeast	Focused	Disabilities, Local Community	Cross-Cultural Communication, Application to Real Life Scenarios
Kumagai, et al.	2009	Midwest	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, SES, Gender	Cross-Cultural Communication, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs
Lie, et al.	2010	West	Comprehensive, Focused	Racial/Ethnic Groups, Disabilities, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Perlman & Stagnaro-Green	2010	Northeast	Comprehensive	Racial/Ethnic Groups, Religion, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Application to Real Life Scenarios, Contrasting Health Beliefs
Genao, et al.	2011	South	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, Gender	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Zanetti, et al.	2011	Northeast	Comprehensive	Racial/Ethnic Groups, Local Community	Cross-Cultural Communication, Cultural Traditions, Application to Real Life Scenarios, Cultural Humility/Lifelong Learning
Lubimir & Wen	2011	West	Comprehensive, Focused	Racial/Ethnic Groups, Religion	Cross-Cultural Communication, Cultural Traditions, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Carpenter, et al.	2011	West	Focused	Racial/Ethnic Groups, Religion, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning

(Continued)

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CONTENT IN UNITED STATES MEDICAL EDUCATION

Table A1. (Continued)

Authors	Year Published	U.S. Region	Content Format	Groups Included in Content	Concepts Included in Content
Shield, et al.	2011	Northeast	Focused	Disabilities	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Woodard, et al.	2012	South	Focused	Disabilities, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Schiff & Rieth	2012	West	Comprehensive, Focused	Racial/Ethnic Groups, LGBTQ+ Communities, Religion, Gender	Cross-Cultural Communication, Social Determinants of Health, Application to Real Life Scenarios, Cultural Humility/ Lifelong Learning
Thew, et al.	2013	Northeast	Focused	Disabilities, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Application to Real Life Scenarios
Coria, et al.	2013	Northeast	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, Religion, SES, Gender	Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Zanetti	2014	Northeast	Comprehensive	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Hutchins, et al.	2014	Midwest	Comprehensive, Focused	Racial/Ethnic Groups, Religion, SES, Gender	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/ Bias, Application to Real Life Scenarios, Contrasting Health Beliefs
Ambrose, et al.	2014	West	Focused	-	Social Determinants of Health, Application to Real Life Scenarios, Cultural Humility/ Lifelong Learning
Loue, et al.	2015	Midwest	Comprehensive	Racial/Ethnic Groups, Disabilities, Gender	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Individual Stereotyping/Bias, Application to Real Life Scenarios, Cultural Humility/Lifelong Learning
Swanberg, et al.	2015	Midwest	Comprehensive	Racial/Ethnic Groups, Disabilities, Religion, Gender	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/ Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning

(Continued)

Table A1. (Continued)

Authors	Year Published	U.S. Region	Content Format	Groups Included in Content	Concepts Included in Content
Fracica, et al.	2016	Midwest	Comprehensive, Focused	Racial/Ethnic Groups, LGBTQ+ Communities, SES, Gender, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Application to Real Life Scenarios, Contrasting Health Beliefs
Wong & Omori	2016	West	Focused	Racial/Ethnic Groups, Disabilities, SES, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Sarmiento, et al.	2016	Midwest	Focused	Disabilities, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Rogers, et al.	2016	Midwest	Focused	Disabilities, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias
Dao, et al.	2017	Northeast	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, Religion, SES, Gender	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Kenison, et al.	2017	Northeast	Focused	Racial/Ethnic Groups	Cross-Cultural Communication, Social Determinants of Health, Individual Stereotyping/Bias, Application to Real Life Scenarios
Green, et al.	2017	Northeast	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, Disabilities, Religion	Cross-Cultural Communication, Cultural Traditions, Contrasting Health Beliefs
McElfish, et al.	2017	South	Focused	Racial/Ethnic Groups, Disabilities, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs
Solotke, et al.	2017	Northeast	Comprehensive, Focused	Racial/Ethnic Groups, LGBTQ+ Communities, Religion, SES, Gender, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Lewis & Prunuske	2017	Midwest	Focused	Racial/Ethnic Groups, Religion, SES, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning

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Table A1. (Continued)

Authors	Year Published	U.S. Region	Content Format	Groups Included in Content	Concepts Included in Content
Smothers, et al.	2018	South	Focused	Religion	Cross-Cultural Communication, Background Concepts, Application to Real Life Scenarios
Worden & Ait-Daoud Tiouririne	2018	South	Comprehensive	Racial/Ethnic Groups	Cross-Cultural Communication, Social Determinants of Health, Application to Real Life Scenarios, Cultural Humility/ Lifelong Learning
Omoruyi, et al.	2018	South	Focused	Racial/Ethnic Groups	Cross-Cultural Communication, Application to Real Life Scenarios
Crocker, et al.	2019	Midwest	Comprehensive, Focused	Racial/Ethnic Groups, Religion	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Bright & Nokes	2019	Northeast	Focused	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Thande, et al.	2019	Northeast	Comprehensive, Focused	LGBTQ+ Communities, Gender, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
DallaPiazza, et al.	2020	Northeast	Comprehensive	-	Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Ona, et al.	2020	Northeast	Focused	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias
Bi, et al.	2020	Midwest	Comprehensive, Focused	Racial/Ethnic Groups, LGBTQ+ Communities, Disabilities, Gender, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Godley, et al.	2020	South	Focused	Racial/Ethnic Groups, Gender, Local Community	Cross-Cultural Communication, Individual Stereotyping/Bias, Systemic Bias, Cultural Humility/ Lifelong Learning
Allen, et al.	2020	South	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, Religion, SES, Gender, Local Community	Cross-Cultural Communication, Cultural Traditions, Social Determinants of Health, Application to Real Life Scenarios, Contrasting Health Beliefs
Hearn & Hearn	2020	Midwest	Focused	Disabilities	Cross-Cultural Communication, Background Concepts, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios

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Table A1. (Continued)

Authors	Year Published	U.S. Region	Content Format	Groups Included in Content	Concepts Included in Content
Gupta, et al.	2020	West	Comprehensive	Racial/Ethnic Groups, Religion, SES	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Greene & Scott	2021	South	Focused	Disabilities, Local Community	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Individual Stereotyping/Bias, Application to Real Life Scenarios
Ellison, et al.	2021	South	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, Disabilities, SES, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Cultural Humility/Lifelong Learning
Ortega, et al.	2021	Midwest	Focused	Racial/Ethnic Groups, Disabilities, Religion, SES, Gender	Cross-Cultural Communication, Cultural Traditions, Social Determinants of Health, Application to Real Life Scenarios, Contrasting Health Beliefs
Borowsky, et al.	2021	West	Comprehensive, Focused	Disabilities	Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Gonzalez, et al.	2021	Northeast	Comprehensive, Focused	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Cultural Humility/Lifelong Learning
Denizard-Thompson, et al.	2021	South	Comprehensive	SES, Gender	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Lombardero, et al.	2022	West	Comprehensive	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs, Cultural Humility/Lifelong Learning
Offei-Dua, et al.	2022	Midwest	Comprehensive	Racial/Ethnic Groups, LGBTQ+ Communities, SES, Gender, Local Community	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias

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Table A1. (Continued)

Authors	Year Published	U.S. Region	Content Format	Groups Included in Content	Concepts Included in Content
Railey, et al.	2022	South	Comprehensive	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Cultural Humility/Lifelong Learning
Khoury, et al.	2022	Northeast	Comprehensive	Racial/Ethnic Groups	Cross-Cultural Communication, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Cultural Humility/Lifelong Learning
Novak, et al.	2022	West	Focused	Racial/Ethnic Groups, SES	Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias
Burson, et al.	2022	Northeast	Comprehensive, Focused	Racial/Ethnic Groups, Religion, SES, Gender	Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Dhanani, et al.	2022	West	Focused	Disabilities	Cross-Cultural Communication, Background Concepts, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios
Alli, et al.	2023	Midwest	Focused	Racial/Ethnic Groups	Cross-Cultural Communication, Background Concepts, Cultural Traditions, Social Determinants of Health, Individual Stereotyping/Bias, Systemic Bias, Application to Real Life Scenarios, Contrasting Health Beliefs

