

Cultural Competency Curricula in US Graduate Medical Education: A Scoping Review

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ABSTRACT

Background Cultural competency training provides participants with knowledge and skills to improve cross-cultural communication and is required for all graduate medical education (GME) training programs.

Objective The authors sought to determine what cultural competency curricula exist specifically in GME.

Methods In April 2020, the authors performed a scoping review of the literature using a multidatabase (PubMed, Ovid, MedEdPORTAL) search strategy that included keywords relevant to GME and cultural competency. The authors extracted descriptive data about the structure, implementation, and analysis of cultural competency curricula and analyzed these data for trends.

Results Sixty-seven articles met criteria for inclusion, of which 61 (91%) were focused exclusively on residents. The most commonly included specialties were psychiatry (n=19, 28.4%), internal medicine (n=16, 23.9%), and pediatrics (n=15, 22.4%). The shortest intervention was a 30-minute online module, while the longest contained didactics, electives, and mentoring programs that spanned the entirety of residency training (4 years). The sample sizes of included studies ranged from 6 to 833 participants. Eight (11.9%) studies utilized OSCEs as assessment tools, while 17 (25.4%) conducted semi-structured interviews or focus groups. Four common themes were unique interventions, retention of learning, trainee evaluation of curricula, and resources required for implementation.

Conclusions Wide variation exists in the design, implementation, and evaluation of cultural competency curricula for residents and fellows.

Introduction

In 2003, the Institute of Medicine released its call to action for cultural competency curricula to be incorporated into medical education,¹ as racial and ethnic minority groups in the United States experience worse health outcomes and report poorer satisfaction with their health care compared to non-minority patients.^{2,3} Poor patient-clinician communication is associated with worse clinical outcomes across medical specialties,^{4,5} and these communication deficiencies are speculated to contribute to health inequity.^{6,7} Effective communication leads to improved physical and mental health,⁴ but patients of color commonly report subpar communication from their physicians.^{8–11}

The Accreditation Council for Graduate Medical Education (ACGME) requires all residency programs in all specialties to include training and assessment of resident skills in caring for diverse patients.¹² Despite this requirement, there is limited evidence that residency programs have implemented effective

curricula focused on the care of diverse patient populations.¹³ In fact, up to half of graduating residents across surgical and medical specialties report receiving little or no instruction in cross-cultural care during residency, and approximately a quarter feel unprepared to identify cultural customs that impact medical care.¹⁴ As a result, the need for effective cultural dexterity training for residents has been highlighted.^{15–17}

While various curricula have been proposed and implemented for medical clinicians,¹⁸ these largely focus on the medical student level.¹⁹ A review of the literature limited to residency and fellowship programs in the United States will help inform such programs as they seek to implement and scale their own curricula within the constraints of the rigorous schedules of trainees. Due to wide variability in the topic areas and delivery methods of cultural competency curricula, we performed a scoping review to explore common themes and challenges.

Methods

Overview

We followed the 5-step methodological framework described by Arksey and O'Malley²⁰: (1) Identifying

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Editor's Note: The online version of this article contains the database searches used in the review.

the research question; (2) Identifying relevant studies; (3) Selecting studies; (4) Data charting; and (5) Collating, summarizing, and reporting the results. This study is reported in compliance with the PRISMA-ScR checklist.

Identifying the Research Question

We framed our review around the question, “What is the current landscape of cultural competency curricula in US graduate medical education (GME)?” Our goal was to provide a better understanding of common methods, themes, and challenges to inform residency and fellowship programs hoping to implement or modify their own such curricula. Specifically, we investigated variables pertaining to curriculum focus, methods of implementation, duration of interventions, and methods of assessment and evaluation.

Identifying Relevant Studies

We iteratively developed search criteria with guidance from an experienced medical librarian (P.B.) and edited with the assistance of 2 authors (R.A., E.R.), with the goal of identifying educational curricula or training programs focused on concepts of cultural competency, cultural diversity, and health care disparities published in English from January 2004 through April 2020. These dates of interest were selected based on the previously mentioned 2003 Institute of Medicine call to action for the implementation of cultural competency curricula. For the purposes of this study, curricula/trainings must have been intended for US GME (ie, residents and fellows across any medical specialty).

Articles reporting on cultural competency curricula and training in GME were identified by searching the electronic databases MEDLINE, ERIC, and PsycINFO. Our search was structured to capture articles that included terms reflecting the concepts of cultural competence, cultural diversity, or health care disparities together with terms for education and curriculum in the context of GME and residency (specific database searches provided as online supplementary data). The search for education topics included all indexed articles published in medical education journals. Controlled vocabulary terms were included when available, and no language limits were applied. The searches were carried out on April 20, 2020, and were limited to articles published in 2004 or later.

Selecting Studies

For the first step of the review, each title/abstract was examined by 2 reviewers, one of whom was a senior

reviewer. If there was agreement between those 2 reviewers, that abstract was either advanced to the second step of a full text review or excluded. If there was a disagreement between those 2 reviewers, a senior reviewer who did not initially examine the abstract reviewed it. The determination of that third reviewer decided whether the abstract advanced to step 2. Due to the large number of articles, full text review was divided among 7 reviewers. All articles advanced from the full text review were again confirmed by a senior reviewer. Data extraction was performed by the 4 senior reviewers and analysis of the extracted data was conducted by a single senior reviewer. We did not assess the quality of each study as the goal of our scoping review was to broadly map the existing literature on this topic.

Data Charting

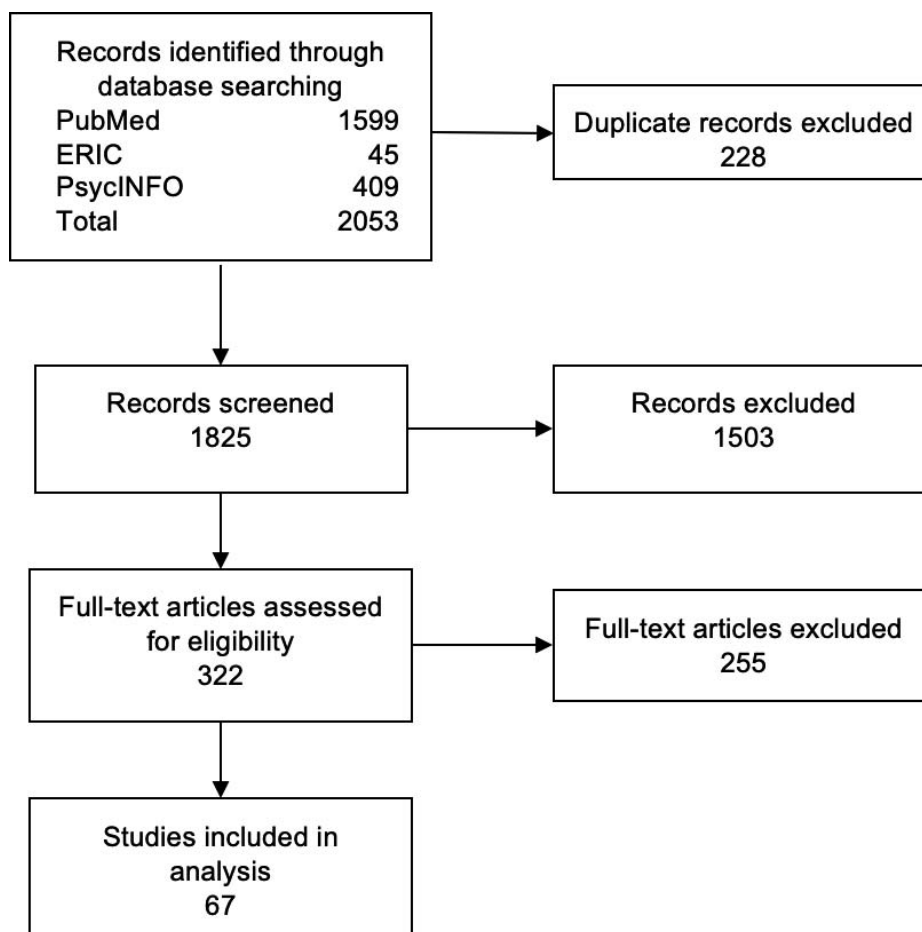
The reviewers collaboratively decided upon the data points of interest based on personal experience developing and implementing a cultural competency curriculum, as well as themes noted during the full text review. These data points were authors, title, publication source, year of publication, learner population training level, resident/fellow specialty, educator population, specific area of cultural competency focus (if any), educational delivery methods, intervention schedule and/or length, intervention outcomes, method of data collection, assessment design, sample size, and results. We collected these data through Google Forms and exported them to Microsoft Excel for descriptive analysis.

Collating, Summarizing, and Reporting the Results

We employed 2 methods of collating and summarizing the charted data. First, we performed a descriptive numerical analysis on the frequency of various data points, such as curricular topics, specialties, educational delivery methods, and others. We then developed a consensus on common and/or interesting themes that were noted during the data charting process. Themes of interest were determined through discussion of either recurrent topics across studies or topics that stood out as most likely to help inform the implementation of cultural competency curricula.

Results

Our search yielded 1825 unique records. Full-text documents were examined for 322 of these, and ultimately 67 articles were included for analysis (FIGURE). Characteristics of the included studies can be seen in the TABLE.^{21–87} Year of publication ranged from 2004 to 2020. Sixty-one (91.0%) described



FIGURE

PRISMA Diagram for a Scoping Review Assessing the Landscape of Cultural Competency Curricula in US Graduate Medical Education

curricula or programs specifically for residents. The 3 most common specialties represented were psychiatry ($n=19$, 28.4%), internal medicine ($n=16$, 23.9%), and pediatrics ($n=15$, 22.4%). More than half of the studies ($n=39$, 58.2%) utilized didactic sessions/lectures. Several studies ($n=22$, 32.8%) incorporated clinical or community-based experiences to complement the didactics. The shortest intervention was a 30-minute online module, and the longest interventions were lectures, electives, and mentoring programs that spanned the duration of residency training (up to 4 years). Eight studies (11.9%) used OSCEs as a method of assessment; 17 (25.4%) conducted semi-structured interviews or focus groups. With regards to evaluation design, 25 (37.3%) used a post-intervention assessment, 33 (49.3%) did a pre-/post-design, and 2 (3.0%) were randomized controlled trials. The smallest and largest sample sizes evaluated were 6 and 833, respectively. The mean number of participants was 47 if including the largest study, or 34 if excluding the largest study, which was an outlier. Only 2 studies

investigated patient outcomes, both of which were self-reported patient perception or satisfaction.^{42,74} Four themes of note arose for further descriptive analysis: unique interventions/curricula, retention of learning, trainee evaluation of curricula, and resources required for curriculum implementation.

Unique Interventions/Curricula

While the vast majority of included studies used lectures/didactics as educational methods, a few groups found innovative ways of teaching cultural competency. For example, Anand et al utilized art therapy sessions with psychiatry residents and patients to stimulate discussions on empathy, humility, curiosity, and respect.²² While the goal of this intervention was not specifically focused on cultural competency, these themes are accepted in the literature as central tenets to providing culturally competent care, and residents reported that this experience provided a unique way to learn more about patients'

TABLE
Features of Included Studies in a 2020 Scoping Review of Cultural Competency Curricula in US Graduate Medical Education

First Author (Year of Publication)	Learner Training Level	Specialty	Cultural Competency Focus	Educational Delivery Methods	Intervention Schedule/Length
Aeder ²¹ (2007)	Residents	Pediatrics	Race/ethnicity, religion	Lectures, simulation	Teaching session followed by 5 OSCE stations with debrief and feedback
Anand ²² (2019)	Residents	Psychiatry	Broadly defined/general cultural competency	Outpatient art therapy sessions	Weekly for a total of 6–8 weeks
Anandarajah ²³ (2016)	Residents	Family medicine	Religion	Lectures, rounds with chaplain, experiential exercises (eg, yoga, art, dance)	Longitudinal curriculum that spanned all 3 years of residency training
Asgary ²⁴ (2012)	Residents	Internal medicine, pediatrics, medicine-pediatrics	Global health/resettled population/refugees, sociopolitical topics, non-clinical issues	Lectures, assigned reading, clinical rotations, workshops	2-week elective
Asgary ²⁵ (2013)	Residents	Internal medicine	Global health/resettled population/refugees	Lectures, clinical rotations, ambulatory morning report	Twice during an ambulatory block, participants had a 1-hour lecture before a 4-hour clinic block, followed by case report the next day
Basu ²⁶ (2017)	Residents	Internal medicine	Health equity, social determinants of health	Lectures, clinical rotations, field trips, elective project	100 hours of curricular instruction organized within two 2-week immersion blocks and an additional 18 hours of didactic sessions
Beder ²⁷ (2015)	Both residents and fellows	Psychiatry	Race/ethnicity, LGBTQ	Assigned reading, reading groups	Longitudinal reading group with meetings every 1–2 months
Benjamin ²⁸ (2019)	Both residents and fellows	Psychiatry	Broadly defined/general cultural competency	Lectures, simulation	4 hours
Bromage ²⁹ (2019)	Residents	Psychiatry	Broadly defined/general cultural competency	Assigned reading, visits to neighborhoods, research presentations	3 non-consecutive days
Castillo ³⁰ (2010)	Residents	Pediatrics	Broadly defined/general cultural competency, global health/resettled population/refugees	Lectures, assigned reading	1-year program including 9 didactic sessions, approximately 12 journal clubs, and a 2–4 week elective abroad
Cherabie ³¹ (2018)	Residents	Internal medicine, psychiatry, pediatrics, family medicine	LGBTQ	Lectures	1-hour lecture

TABLE
Features of Included Studies in a 2020 Scoping Review of Cultural Competency Curricula in US Graduate Medical Education (continued)

First Author (Year of Publication)	Learner Training Level	Specialty	Cultural Competency Focus	Educational Delivery Methods	Intervention Schedule/Length
Chun ³² (2010)	Residents	General surgery, family medicine	Broadly defined/general cultural competency	No specific curriculum/ intervention-baseline analysis	Onetime quantitative survey to establish baseline and compare 2 groups
Chun ³³ (2012)	Residents	General surgery	Race/ethnicity	OSCEs, lecture, journal club	1 OSCE performed at baseline and at 5-month follow-up, with an intervening lecture and journal club
Chun ³⁴ (2014)	Residents	General surgery	Race/ethnicity	OSCEs, lecture, journal club	1 OSCE performed at baseline and at 3-month follow-up, with an intervening lecture and journal club
Crandall ³⁵ (2011)	Residents	General surgery	Population health	Lectures, clinical rotations	Longitudinal throughout didactic curriculum, which is cycled every 2 years
DasGupta ³⁶ (2010)	Residents	Pediatrics	Broadly defined/general cultural competency	Lectures, small group sessions, problem-based learning	Monthly reading group with residents and staff from a community-based organization
Dennis ³⁷ (2019)	Residents	Family medicine	Race/ethnicity	Lectures, workshops, community tours	Weekly didactic sessions with an option for a community visit over an 11-month period
Frasca ³⁸ (2019)	Residents	Internal medicine, medicine- pediatrics	LGBTQ	Online case-based modules, clinical rotations	7 months
Hammarlund ³⁹ (2017)	Residents	Internal medicine, general surgery, psychiatry, pediatrics, surgical subspecialties, emergency medicine	Baton Rouge-specific issues of disparities and barriers to care	Lectures, clinical rotations	1-hour didactic followed by integration over 1-month rotation
Harris ⁴⁰ (2008)	Residents	Psychiatry	Broadly defined/general cultural competency	Lectures, role-play, small group discussion	9 weeks (75 minutes per week)
Haymaker ⁴¹ (2017)	Residents	Family medicine	Privilege, social class, social determinants of health	Small group discussion, experiential learning activity, quizzes with self-reflection	Interventions at 3 different programs are described, each last approximately 1 month
Hershberger ⁴² (2008)	Residents	Family medicine	Race/ethnicity	Lectures, simulation, small group discussions	Four 2-hour monthly sessions

TABLE
Features of Included Studies in a 2020 Scoping Review of Cultural Competency Curricula in US Graduate Medical Education (continued)

First Author (Year of Publication)	Learner Training Level	Specialty	Cultural Competency Focus	Educational Delivery Methods	Intervention Schedule/Length
Horky ⁴³ (2017)	Residents	Pediatrics	Race/ethnicity, low income, religion	Online modules	Six 1-hour modules over the course of 1 week
Jacobs ⁴⁴ (2019)	Residents	Family medicine	Broadly defined/general cultural competency	Lectures, audiovisual resources, simulation, assigned reading, community visits	3-year longitudinal curriculum
Jirasevijinda ⁴⁵ (2010)	Residents	Internal medicine, pediatrics	Race/ethnicity	Audiovisual resources	Yearlong, monthly workshop series
Juarez ⁴⁶ (2006)	Residents	Family medicine	Broadly defined/general cultural competency	Lectures, audiovisual resources, simulation, assigned reading, home visits, site visits to community agencies, experiential activities (eg, art, music, creative writing)	36-hour curriculum taught over 1 year in monthly 3-hour sessions
Kelley ⁴⁷ (2019)	Residents	Psychiatry	Race/ethnicity, religion	Lectures, small groups with case-based discussion, panel discussion	One 4-hour workshop
Kidd ⁴⁸ (2016)	Residents	Psychiatry	LGBTQ	Lectures, role-play	One 90-minute session which included a brief didactic followed by role-play
Knox ⁴⁹ (2018)	Residents	Family medicine	Broadly defined/general cultural competency	Lectures, assigned reading, clinical rotations	Longitudinal curriculum that spans all 3 years of residency training
Kokas ⁵⁰ (2019)	Residents	Multiple specialties (not specified)	Broadly defined/general cultural competency	Lectures, audiovisual resources, role-play, small group workshops	2-hour program
Kozak ⁵¹ (2010)	Residents	Psychiatry	Religion	Lectures, clinical rotations, community visits	4 years
Krajewski ⁵² (2008)	Residents	General surgery	Broadly defined/general cultural competency	Lectures	3–4 hours divided into 2 sessions
Kutob ⁵³ (2009)	Residents	Internal medicine	Race/ethnicity	Online modules	One 60-minute online module
Lichtenstein ⁵⁴ (2018)	Residents	Pediatrics	Low income, broadly defined/general cultural competency	Community bus tour	4-hour bus tour with debriefing
Lion ⁵⁵ (2012)	Residents	Pediatrics	Limited English proficiency	Written test	1 Spanish test
MacNamara ⁵⁶ (2014)	Residents	Internal medicine	Global health/resettled population/refugees	Lectures, assigned reading, clinical exposure	6 months

TABLE
Features of Included Studies in a 2020 Scoping Review of Cultural Competency Curricula in US Graduate Medical Education (continued)

First Author (Year of Publication)	Learner Training Level	Specialty	Cultural Competency Focus	Educational Delivery Methods	Intervention Schedule/Length
Marienfild ⁵⁷ (2013)	Residents	Psychiatry	Global health/resettled population/ refugees	Lectures, mentoring program, clinical community service electives	Longitudinal
McGovern ⁵⁸ (2017)	Residents	Psychiatry	Religion	Lectures, case conferences, conferences with chaplains and ethics consultants, spirituality dinners	3 years
McHenry ⁵⁹ (2016)	Residents	Pediatrics, family medicine	Global health/resettled population/ refugees	Lectures, online modules	30-minute module
Medlock ⁶⁰ (2017)	Residents	Psychiatry	Race/ethnicity	Lectures, group exercises, case- based discussions	Each residency class received a different 50-minute lecture
Mills ⁶¹ (2016)	Residents	Psychiatry	Broadly defined/general cultural competency	Lectures	1-hour didactic
Mills ⁶² (2017)	Residents	Psychiatry	Broadly defined/general cultural competency	Lectures	1-hour didactic
Nageswara Rao ⁶³ (2017)	Fellows	Pediatrics, pediatric hematology/oncology fellows	Broadly defined/general cultural competency	Lectures, online modules, simulation, assigned reading, role-play	Half-day workshop with online module, articles, and multiple- choice questions available 1 month prior to the workshop
Neff ⁶⁴ (2017)	Residents	Family medicine	Broadly defined/general cultural competency	Lectures	One 3-hour lecture
Noriea ⁶⁵ (2017)	Residents	Internal medicine	Broadly defined/general cultural competency	Lectures, audiovisual resources, clinical experiences, structured community exploration, critical reflection	2-hour lecture delivered quarterly
Padilla ⁶⁶ (2016)	Both residents and fellows	Psychiatry	Race/ethnicity, limited English proficiency, religion	OSCEs with feedback	One time
Pak-Gorstein ⁶⁷ (2018)	Residents	Pediatrics	Global health/resettled population/ refugees, broadly defined/general cultural competency	Lectures, simulation, field visits, community immersion	1 monthlong curriculum rotation, 1 monthlong skills development rotation, and a 2-month community immersion the following year
Pejic ⁶⁸ (2019)	Residents	Psychiatry	Global health/resettled population/ refugees	Clinical rotation	Participants spent 2-8 hours per week over a 1-year elective

TABLE
Features of Included Studies in a 2020 Scoping Review of Cultural Competency Curricula in US Graduate Medical Education (continued)

First Author (Year of Publication)	Learner Training Level	Specialty	Cultural Competency Focus	Educational Delivery Methods	Intervention Schedule/Length
Penner ⁶⁹ (2013)	Residents	Family medicine	Race/ethnicity	Clinical rotation	Study took place for 1 year, with the “intervention” being each physician-patient interaction
Pinto Taylor ⁷⁰ (2019)	Residents	Internal medicine, general surgery, pediatrics, surgical subspecialties, emergency medicine, urology, radiation oncology	Limited English proficiency	OSCEs	Two 15-minute OSCEs, 6 months apart
Rosenman ⁷¹ (2016)	Residents	Pediatrics	Cross-cultural communication and cultural humility	Simulation	Each participant was scheduled for 2 simulation scenarios during a 3-hour afternoon session
Staton ⁷² (2013)	Residents	Internal medicine	Broadly defined/general cultural competency	Lectures, audiovisual resources, online modules, small group sessions	1 week
Stevenson ⁷³ (2020)	Fellows	Endocrinology fellows	LGBTQ	OSCEs	1 OSCE
Stoneking ⁷⁴ (2016)	Residents	Emergency medicine	Race/ethnicity, limited English proficiency	Lectures, audiovisual resources, assigned reading	Weekly 5-hour educational conferences
Streed ⁷⁵ (2019)	Residents	Internal medicine	LGBTQ	Online modules	One time, 1-hour online module
Taylor ⁷⁶ (2006)	Residents	Not specified	Low income	Community visits	2-hour car tour
Udyavar ⁷⁷ (2018)	Residents	General surgery	Broadly defined/general cultural competency	Flipped classroom, e-learning modules, role-play sessions	1 year
Ufomota ⁷⁸ (2018)	Residents	Internal medicine	LGBTQ	Lectures, case-based interactive discussion	Four 45-minute case-based interactive discussions over a 4-month period
Wang ⁷⁹ (2012)	Residents	Psychiatry	Global health/resettled population/refugees	Lectures, field work	1 year
Wildet ⁸⁰ (2016)	Residents	Family medicine	Broadly defined/general cultural competency	Research concepts education	1 month
Willen ⁸¹ (2013)	Residents	Psychiatry	Broadly defined/general cultural competency	Lectures, narrative medicine workshops, group presentations	18 hourlong sessions over 1 academic year
Yeung ⁸² (2017)	Residents	General surgery, anesthesiology	Race/ethnicity	OSCEs	1 OSCE

TABLE
Features of Included Studies in a 2020 Scoping Review of Cultural Competency Curricula in US Graduate Medical Education (continued)

First Author (Year of Publication)	Learner Training Level	Specialty	Cultural Competency Focus	Educational Delivery Methods	Intervention Schedule/Length
Yeung ⁸³ (2018)	Both residents and fellows	Dermatology	Global health/resettled population/refugees, broadly defined/general cultural competency	Lectures	1 case presented at grand rounds per quarter
York Frasier ⁸⁴ (2010)	Residents	Family medicine	Limited English proficiency	Mini-immersion retreat with audiovisual resources, assigned reading, role-play	6 days
Zabar ⁸⁵ (2006)	Residents	Internal medicine	Limited English proficiency	Simulation, OSCEs	One 3-hour, 10-station clinical skills OSCE
Zeidan ⁸⁶ (2018)	Residents	Emergency medicine	Race/ethnicity	Online test, small group discussion	One 2-hour session comprised of the IAT and facilitated discussion
Zuñiga ⁸⁷ (2006)	Residents	Pediatrics	Race/ethnicity, low income	Audiovisual resources, immersion experience	4-week rotation, plus continuity clinic for 3 years

Abbreviations: OSCE, objective structured clinical examination; IAT, Implicit Association Test.

cultural backgrounds. Castillo et al asked residents to perform reflective journaling on their cross-cultural experiences using a semi-structured guide.³⁰ Residents reflected on expectations/assumptions prior to these encounters, similarities and differences they noted between themselves and their patients, and what aspects of this cross-cultural care they would continue to use in their practice. Medlock et al held a lecture series on racial and ethnic minority patient care throughout the duration of a psychiatry training program, with a different topic for each class year.⁶⁰ Although the use of lectures is not unique, the intern lecture focused on the history of racism specific to the training program city. “Presenting the historical background for patients’ experiences...was effective in demonstrating the experiences of institutional, interpersonal, and internal racism that contributed to the patient’s [presentation].” The authors noted that this lecture topic could be readily adapted to other cities and training programs.

Retention of Learning

Three studies described issues with long-term retention of curricular concepts. Immediately following a single, 90-minute lecture on the care of transgender patients, Kidd et al found a statistically significant improvement in 4 out of 5 domains taught in the session (empathy, knowledge, comfort, and motivation for future learning) as compared to pre-intervention assessment.⁴⁸ Unfortunately, these improvements were not maintained on repeat testing 90 days later. Similarly, Harris et al assessed retention 9 months following a multicultural competence course for psychiatry residents.⁴⁰ They found that residents’ awareness of their own privilege significantly declined over the time period, while other multicultural knowledge, skills, and attitudes were also lower but did not achieve significance. The authors hypothesized that residents lose awareness of these complex issues without regular discussion, and that normalizing conversations about bias and privilege may allow for better long-term retention. The longest retention analysis was performed by Anandarajah et al in their evaluation of a longitudinal spiritual care curriculum.²³ Their group interviewed family medicine residents prior to receiving the curriculum, immediately following conclusion of the curriculum, and then 8 years later as attending physicians. Many reported difficulty remembering details of their spiritual care training: “I honestly do not remember any specific aspects of the curriculum other than the idea of being comfortable with bringing it up.” Nevertheless, respondents were supportive of receiving this type of education early in their medical

training, as this engrained these topics as a routine part of patient care.

Trainee Evaluation of Curricula

In addition to evaluation of curricular efficacy, several studies sought to examine the trainee experience through qualitative methods as a way to enrich their analysis and guide future adaptations of their efforts. Some trainees commented on the role their own biases play in providing patient care: “I am more aware of power imbalances and the history of psychiatry, which makes me more reflective about my own practices.”²⁷ “[residents] expressed a great deal of satisfaction about enjoying the exploration of their own cultural/spiritual backgrounds and how these related to patient care.”⁵¹ Some trainees struggled with how to address these issues: “...residents reported feeling overwhelmed by their increased recognition of structural influences on health. They expressed a need for practical strategies to address structural vulnerabilities in and beyond clinical settings.”⁶⁴ In addition to these reflections on curricular content, some groups sought to examine the trainee perspective on the structure and implementation in order to improve trainee buy-in and overall satisfaction. Willen et al found that trainees preferred their education to be more interactive and less lecture-based; to have judgment- and repercussion-free safe spaces to discuss their concerns and feelings; and to use real-life experiences of residents and instructors as educational tools, rather than dated or unengaging articles.⁸¹ Participants in one study cited the importance of senior residents serving as role models with regards to culturally competent behaviors, as well as institutional and leadership buy-in.⁷⁷

Resources Required for Curriculum Implementation

Several studies reported the resources required to implement their cultural competency initiatives, both monetary and otherwise. Noriea et al required no external funding for their health disparities curriculum and spent only \$300 on meals provided to residents during didactic sessions.⁶⁵ Although financially reasonable, the time cost for curricular development and implementation was not insignificant, at a total of 120 hours and 36 hours, respectively. An even more extensive example is found in the medical Spanish immersion curriculum described by York Frasier et al.⁸⁴ Their program required notable financial and scheduling commitments, as this was a 6-day experience during which family medicine interns were provided with all lodging, meals, and curricular materials including videos, books, CDs, and 42 hours

of instruction. In the discussion, the authors note that costs were reduced in subsequent years by eliminating the overnight lodging component of the experience.

Discussion

Our investigation into the current state of cultural competency curricula within US residency and fellowship training programs identified 67 articles over a 15-year period. While previous studies have analyzed these curricula across a variety of health care fields,^{88–90} this review focused only on residents and fellows in order to draw conclusions more specific to this population. Trainees provide a substantial amount of the direct patient care at academic medical centers, serving patients from a diverse array of backgrounds. These trainees are the future attending physician leaders in our health care system, and thus are the ideal targets of interventions aimed at creating a more equitable health care system. Optimization of cultural competency training for residents and fellows has the potential to lead to broader culture change within medicine and improve care for patients of all backgrounds. This review highlights 4 important considerations when attempting to implement cultural competency curricula, therefore providing guidance on how residency and fellowship programs may address these curricular needs.

Unique Interventions

Non-traditional methods of education, such as art therapy²² or reflective journaling,³⁰ may serve to better engage residents and fellows. This resident engagement is critical to buy-in, and interventions that increase self-awareness of one's own implicit bias may make participation in a cultural competency curriculum more enticing.⁹¹ The use of visual art to improve general observational skills and cultural sensitivity is more common in medical student education as compared to GME.^{92,93} This may be due to perceptions that residents and fellows do not have time for non-clinically focused education, or perhaps that these humanities-oriented programs are not appealing to more senior trainees. While evidence for educational efficacy of these interventions is limited, they are generally well-received by learners.^{92,93} An additional benefit of these more artistic, individualistic interventions is their low cost and ability to fit into a busy trainee schedule based on personal availability. Tailoring cross-cultural curricula to specific patient populations frequently encountered by trainees may further increase buy-in. Programs developing their own curricula may be well-served by such targeted, innovative approaches, rather than more traditional lectures on broad cultural competency topics.⁶⁰

Retention of Learning

Our search found evidence that trainees' knowledge, skills, and self-awareness of cross-cultural issues variably declined over time frames of 90 days to 8 years.^{23,40,48} The groups that studied retention mainly used a combination of large group lectures and small group discussions in their curricula. Some research groups have found that certain formats of curriculum delivery are more effective at producing retention than others, such as bolus web-based teaching⁹⁴ or interactive, case-based drills.⁹⁵ Among medical students, high-dose, low-frequency simulation with trained, invested instructors may improve long-term clinical knowledge retention.⁹⁶ For residents and fellows, cultural competency simulation may achieve sustainable mastery of skills that are broadly applicable across clinical specialties and scenarios.

Trainee Evaluation of Curricula

It is of the utmost importance for programs to continually seek feedback in order to optimize chances for success within their trainee population. Some trainees seek a deeper understanding of their own biases and backgrounds and how these impact the outcomes of their patients.^{27,51} As previously stated, they also prefer interactive curricula over lectures⁸¹ and seek practical tips for utilizing cultural competency skills in real clinical scenarios.⁶⁴ Trainees also found it important that departmental leadership and senior residents must serve as role models by visibly engaging with and supporting the lessons imparted by cultural competency curricula.⁷⁷ This last point is of particular importance in the midst of ongoing national conversations regarding race and racism in the United States. Faculty discomfort or inexperience with discussing these difficult topics limits trainees' opportunities for growth and education in these realms.⁹⁷ In order to be effective educators, faculty and leadership must first be effective and willing learners. Just as physicians are often encouraged to be "lifelong learners" with regards to clinical medicine, cultural competence is a longitudinal undertaking. As such, some have suggested that "cultural humility" is a more appropriate term, as it removes implications of an end point where one is deemed "competent."⁹⁸

Resources Required for Curriculum Implementation

While not addressed by most articles included in this review, the time and costs of any educational program are important considerations, as they hold strong implications for sustainability and ability to

disseminate more broadly.^{65,84} Programs may reduce both time and costs of implementation by seeking out existing, peer-reviewed cultural competency curricula published online (such as MedEdPORTAL); partnering with institutional diversity, equity, and inclusion groups; or collaborating with other institutional GME programs with similar educational goals.

Limitations

This review was limited to studies written in English and published in peer-reviewed journals. This potentially excludes descriptions of cultural competency curricula that are being used in practice but have not been published. The benefit of those curricula that have undergone peer review is that they tend to be highly contextual, detailed, and longitudinal, and thus attempt to address cultural competency in a systemic way. Additionally, our method of categorizing studies by topic of cultural competency focus may differ from the study authors' perspectives due to reviewer subjectivity.

Conclusions

This scoping review found that the literature on GME cultural competency curricula reports improved trainee satisfaction with unique curricular designs, importance of trainee evaluations, difficulty achieving knowledge retention, and consideration of program-specific resource limitations.

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