Mechanisms Driving Postgraduate Health and Social Science Students’ Cultural Competence: An Integrated Systematic Review

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Abstract

Purpose
The COVID-19 pandemic revealed a global urgency to address health care provision disparities, which have largely been influenced by systematic racism in federal and state policies. The World Health Organization recommends educational institutions train clinicians in cultural competence (CC); however, the mechanisms and interacting social structures that influence individuals to achieve CC have received little attention. This review investigates how postgraduate health and social science education approaches CC and how it accomplishes (or not) its goals.

Method
The authors used critical realism and Whittemore and Knafl’s methods to conduct a systematic integrated review. Seven databases (MEDLINE, CINAHL, PsycINFO, Scopus, PubMed, Web of Science, and ERIC) were searched from 2000 to 2020 for original research studies. Inclusion criteria were: the use of the term “cultural competence” and/or any one of Campinha-Bacote’s 5 CC factors, being about postgraduate health and/or social science students, and being about a postgraduate curriculum or a component of it. Thematic analysis was used to reveal the mechanisms and interacting social structures underlying CC.

Results
Thirty-two studies were included and 2 approaches to CC (themes) were identified. The first theme was professionalized pedagogy, which had 2 subthemes: othering and labeling. The second theme was becoming culturally competent, which had 2 subthemes: a safe CC teaching environment and social interactions that cultivate reflexivity.

Conclusions
CC conceptualizations in postgraduate health and social science education tend to view cultural differences as a problem and CC skills as a way to mitigate differences to enhance patient care. However, this generates a focus on the other, rather than a focus on the self. Future research should explore the extent to which insight, cognitive flexibility, and reflexivity, taught in safe teaching environments, are associated with increasing students’ cultural safety, cultural humility, and CC.

The COVID-19 pandemic revealed a global urgency to address health care provision disparities, which have largely been influenced by systematic racism (see Supplemental Digital Appendix 1 at http://links.lww.com/ACADMED/B264)

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recognition of structural health care inequalities. 32 Despite American and Canadian legislation to mandate CC training for health care professionals, 13 CC has not yet addressed the inherent power imbalances that generate paternalistic and discriminating health care practices. 9

Nevertheless, health care education acknowledges discriminatory practices rooted in colonization across Australia, Canada, New Zealand, and the United States. 9 This acknowledgment recognizes that clinicians’ biases hinder minorities—particularly those of African, Hispanic, Asian, and Indigenous descent and those of lower socioeconomic status—from receiving equal health care access. 9,13 Consequently, these countries introduced the notion of cultural safety into postgraduate health care education, particularly in interdisciplinary studies, nursing, medicine, dentistry, pharmacology, psychology, social work, and audiology. 9

Cultural safety is an approach that considers the structural and interpersonal power imbalances that shape discriminatory experiences and practices, such as institutionalized racism. 14 To practice cultural safety, one needs to actively engage in a process of self-reflection and discovery to mitigate power imbalances, which can potentially undermine trust in relationships with patients and families. 15 Cultural safety also provides opportunities to challenge conventional thinking about developing cultural humility. 9 A seminal article by Tervalon and Murray-Garcia 16 described a process of cultural humility through which organizational prejudice could be resisted.

Cultural humility is not an end point but part of an ongoing process of self-reflection and self-critique, leading to an appreciation of the cultural priorities and practices of others and an awareness of the power imbalance that exists between health professionals and patients, especially those from diverse backgrounds. 15,16 To date, institutional leadership in postgraduate health care curricula seems to expect instructors to actively engage health care students in ways that consider what is needed to practice cultural humility. 16,17 Without cultural humility, it is uncertain if CC strategies will achieve their goals to reduce and eliminate health disparities 17–19 or if CC improves patient-related outcomes. 20

**Constructs of CC**

There is no standardized conceptual framework for CC in health care 21; therefore, we draw on the definition from Cross et al 10 and the following 5 constructs in Campinha-Bacote’s CC, to conceptualize constructs of CC for this study: 22 According to Campinha-Bacote’s model, 22 clinicians deliver CC through:

1. **Cultural awareness:** Recognizing and developing the attitude that one’s assumptions are different from others;
2. **Cultural desire:** Being motivated to learn and act on cultural awareness;
3. **Cultural knowledge:** Seeking and obtaining knowledge of cultural and ethnic groups;
4. **Cultural skills:** Processing information about a culture and adapting one’s behaviors accordingly; and
5. **Cultural encounters:** Accessing diverse cultures.

**Research gap and purpose**

In postgraduate and interprofessional education, the mechanisms driving Campinha-Bacote’s 5 CC constructs 22 to counteract ethnocentric health care practices 9 are not well evidenced in the literature. We define mechanisms as processes of interrelated dispositions and/or behaviors (parts) in one or more persons that constitute and drive interactions between people and events. 23 Examples of mechanisms are faculty’s attitudes, beliefs, or values that drive the discrimination that exists in education.

A recent scoping review of best practices in health professions education to increase CC confirms a lack of trained faculty to implement curricula. 18 This review was predominantly descriptive and not interpretive, describing the educational strategies employed and highlighting the lack of best practices in the teaching of CC. 19 Furthermore, it does not attempt to address the mechanisms connected to social structures that inadvertently contribute to historic systemic inequalities toward minority groups. 18,24 We define social structures as concepts or ideas made up of organized parts that give the whole entity (e.g., stereotypes, the medical model) strong emergent causal powers or tendencies to create events or experiences. 23 Without a theoretical understanding of how CC is achieved through cultural safety and how it is connected to health care professionals’ cultural humility, stakeholders may view CC learning as merely anecdotal, informally taught, and based on hearsay. 9

Given this gap, our primary research question concerns how postgraduate health and social science education approaches CC and how it accomplishes (or not) its goals. To this end, we investigate (1) how postgraduate health and social science education conceptualizes CC knowledge, (2) what mechanisms interacting with social structures facilitate the emergence of CC, and (3) what mechanisms interacting with social structures hinder the emergence of CC.

**Method**

**Theoretical framework**

We chose critical realism as the paradigm (see Supplemental Digital Appendix 1 at http://links.lww.com/ACADMED/B264) for this review based on its fit with our research purpose. Critical realism is a branch of philosophy that is useful for exploring why some events happen for some people and not others, based on context-dependent social structures and mechanisms. 23 Within critical realism, social reality is stratified into 3 realms: empirical (what is perceived and talked about), actual (what actually—factually—happens), and real (the underlying mechanisms interacting with social structures that explore how things come to be, which are commonly taken-for-granted and unconscious). 23,25

**Procedure**

We aligned the critical realist paradigm with Whitemore and Knaff’s 26 methods to conduct a systematic integrated review. These methods combine experimental (quantitative) and nonexperimental (qualitative) research to provide an enhanced understanding of phenomena from various angles. Following these methods, systematic steps were used for the literature search, data evaluation, data extraction and analysis, and presentation of literature. 26
**Literature search.** We consulted a librarian and searched 7 databases for eligible studies: MEDLINE, CINAHL, PsycINFO, Scopus, PubMed, Web of Science, and ERIC. As Campinha-Bacote\(^{22}\) published a seminal article on CC in health care in 2002, our search included articles from January 2000 to January 2020. Additionally, 2 reviewers (C.L.K.J., D.Y.L.L.) conducted a Google Scholar search and hand-searched reference lists in key articles identified in the database searches. We combined keywords, MeSH terms, and synonyms with Boolean operators (AND/OR) for the search. Keywords were selected based on the acronym PICO/S to represent the population, research interest, context, and study design in which we were interested. Search strategies combined terms for population, research interest, context, and study design and limited results to English-language and peer-reviewed articles. As an example, for Google Scholar, we combined (“cultural competence”) AND (“health science” OR “social science”) AND (“postgraduate” AND “education”). (See Supplemental Digital Appendix 2 at http://links.lww.com/ACADMED/B265 for a complete list of our search terms and search strategies.) We conducted our searches on June 5, 2019, and again for any additional articles on January 20, 2020.

**Data evaluation.** To avoid the conflation of terms, we focused on the term CC, though we did not exclude other related but distinct terms, including cultural safety, cultural sensitivity, cultural diversity, and cultural humility. Indeed, literature acknowledges the importance of these to the process of developing CC.\(^{19}\) We chose original research studies that (1) contained the term “cultural competence” and/or any one of Campinha-Bacote's\(^{22}\) 5 CC factors; (2) were about postgraduate health and/or social science students, whom by default were often already health care professionals or clinicians; and (3) were about a postgraduate curriculum or a component of it. Studies that (1) were not in English; (2) were unrelated to CC; (3) did not contain the term CC or any of the 5 CC components; (4) did not include postgraduate health and/or social science students; (5) focused solely on the psychometric evaluation of CC measurement instruments; (6) were located only in gray literature; or (7) were not accessible via the researchers’ library databases were excluded.

Two researchers (C.L.K.J., D.Y.L.L.) independently screened the abstracts and full texts to minimize any reviewer selection bias.\(^{27}\) A third researcher (Y.F.F.) assisted in resolving any selection discrepancies that arose. All selected abstracts that appeared eligible were then subject to full-text screening by 2 researchers (C.L.K.J., D.Y.L.L.) to confirm the article met the inclusion criteria. We used a web tool, Rayyan, for data management and organization.\(^{28}\)

Once studies were confirmed for eligibility, 2 researchers (C.L.K.J., D.Y.L.L.) conducted an independent quality appraisal and screening of each study using the following study design appraisal tools: Critical Appraisal Skills Programme (for cohort and qualitative studies), Mixed Methods Appraisal Tool (for mixed methods studies), and the Critical Appraisal Tool (for cross-sectional studies). See the footnotes in Appendix 1 for information on the quality appraisal ratings. Altogether, 58 studies were excluded that did not meet the minimum quality standards.

**Results**

**Study selection and characteristics**

Of the 2,286 studies identified, 32 were ultimately included (Figure 1). The included studies came from 6 countries: 23 from the United States,\(^{21,33–52}\) 1 from Canada,\(^{12}\) 1 from Canada and the United States,\(^{4,4}\) 4 from Australia,\(^{5,58–59}\) 1 from Hong Kong and Sweden,\(^{59}\) and 2 from Ireland.\(^{60,61}\) Postgraduate health and/or social science students—from the medical (n = 5,427),\(^{21,35,38,42–45,48,50–52,54,56}\) nursing (n = 1,518),\(^{3,32,34,36,37,40,41,46,49,59–61}\) dentistry (n = 152),\(^{53,55}\) speech pathology (n = 60),\(^{57}\) nutrition counseling (n = 34),\(^{39}\) social work (n = 15),\(^{33}\) and physician assistant (n = 216)\(^{58}\) disciplines—participated in the included studies. One study was composed of interprofessional participants (n = 98).\(^{47}\) The study designs included cohort (n = 9), cross-sectional (n = 10), qualitative (n = 7), and mixed methods (n = 6). After quality appraisal, 13 studies were rated excellent, 10 were rated good, and 9 were rated satisfactory. See Appendix 1 for a brief description of the included studies.

The simultaneous presentation of CC with concepts of cultural sensitivity, cultural
responsiveness, and cultural humility revealed the confusion surrounding CC
discussions.32 According to Sumpter and Carthon, CC discourse used “familiar
buzz phrases such as ‘cultural diversity,’ ‘cultural sensitivity,’ [together with]
‘cultural competence.’” Consequently, CC was “plagued by a lack of consensus
about its meaning, limited knowledge, [and] inadequate infusion in the
curriculum.”

**Themes**
Our analysis identified 2 themes which represent the conceptualization of
CC. The first theme, professionalized pedagogy (see Supplemental Digital
Appendix 1 at http://links.lww.com/ACADMED/B264), includes 2 subthemes: (1)
othering and (2) labeling (Figure 2). The second theme, becoming culturally
competent, consisted of 2 subthemes: (1) a safe CC teaching environment and
(2) social interactions that cultivate reflexivity (see Supplemental Digital
Appendix 1 at http://links.lww.com/ACADMED/B264; Figure 3). The latter theme,
becoming culturally competent, appeared to relate to the cultivation of
cultural safety, although the presence of a safe CC teaching environment did
not necessarily lead to the achievement...
of cultural humility or resolve stigma (see Supplemental Digital Appendix 1 at http://links.lww.com/ACADMED/B264).

**Professionalized pedagogy.** The majority of quotes in the professionalized pedagogy theme (Figure 2) held inadvertent meanings strengthening preconceived assumptions of culture along homogeneous lines of inquiry. This generated knowledge of culture as a product and people were characterized as belonging to distinct homogeneous groups. Most often, this included groups based on sociocultural parameters, including race, ethnicity, socioeconomic status, geography, customs, knowledge, and/or lifestyle. Thus, knowledge of a person's culture could be applied to cultural disease trends \(^{42}\) (see Supplemental Digital Appendix 1 at http://links.lww.com/ACADMED/B264). Professionalized pedagogy was institutionalized in 2 ways, that is, through internationalization and conformity to professional and legal requirements \(^{6,36,37,39,41,44,51,54,58}\) (see outcomes in Figure 2).

Internationalization is a process of integrating institutional cultural change that promotes intercultural or international cultural exchange, and in so doing, adopts global perspectives to deliver higher education. \(^{8}\) Within this process, CC more often focused on specific ethnic cultures that host countries were concerned about \(^{21}\) to “[improve] racial and ethnic diversity and cultural competence in the health professions workforce.” \(^{42}(p1071)\) Conforming to professional and legal requirements refers to adhering to disciplinary obligations to offer CC training; as a way to optimize patient care, ensuring its efficiency and effectiveness and enhancing patient outcomes. \(^{21,36,37,39,42–45,48,51,53,54,58}\)

Further, as part of postgraduate students' acculturation, they were expected to conform or “to adopt the values, skills, attitudes, norms, and knowledge” required by their “society, group, or organization.” \(^{57}(p260)\) They demonstrated their commitment to this end by suppressing deviations from professional norms deemed as threatening. \(^{33}\) In doing so, health professionals were assumed to be better able to manage patients \(^{55,57}\) and CC became a “bona fide occupational qualification.” \(^{58}(p2)\)

Conformity to prescribed norms of CC was often a static product, involving multiple measures. \(^{34}\) For example, researchers measured CC through self-reported proxy measures \(^{58}\) (e.g., burnout, health beliefs, attitudes, ethnocultural empathy, personal acceptance). Alternatively, other measures included preparedness, knowledge, self-awareness, ethnic identity, comfort with CC skills, cultural immersion experiences, CC’s perceived importance, and satisfaction post-CC education. \(^{42–44,47–49,53,58}\)

Common instruments were the Scale of Ethnocultural Empathy, \(^{58,60}\) the
Figure 2 Model illustrating how racialized boundaries of (A) perceived notions of culture precede cultural competence. In this process, cultural competence becomes (B) professionalized pedagogy, which constructs (or reinforces) the prescriptive authority of clinicians as cultural competence. This generates pedagogical tendencies (mechanisms) to reproduce social structures of discrimination, stigma, and racism. In doing so, clinicians use culture as a management strategy to directly treat foreign patients, which prompts (C) othering and (D) labeling. Hence, outcomes of this process result in (E) internationalization and (F) conformity to professional and legal requirements. This model was developed based on the findings of a 2020 integrated systematic review of the literature on cultural competence.

Figure 3 Model illustrating the process of (A) becoming culturally competent, which precedes conceptualizations of (B) culture. Culture then becomes a lens to actively reinterpret preconceptions about cultural groups in relation to oneself. In this process, it is necessary to create (C) a safe cultural competence teaching environment to prompt (D) social interactions that cultivate reflexivity. This process allows for the development of the mechanisms of insight and cognitive flexibility to address countervailing social structures of identity and stigma. In doing so, the application of reflexivity in clinical settings may occur. This model was developed based on the findings of a 2020 integrated systematic review of the literature on cultural competence.
Conformity was achieved through 2 mechanisms: othering and labeling.

**Othering.** Othering refers to the knowledge of an “awareness of assessment tools for others, specific diseases among others, others’ barriers to health care, and stereotypical feelings toward others.”

It is a top-down approach, representing a one-way transfer of predetermined cultural information that directs attention to specific cultural disease trends. For example, one faculty momentarily highlighted an aspect of a foreign patient, when it was problematic: “I may teach something to residents, but it is likely a brief, passing moment. For example, a stoic Japanese patient.”

The teaching of CC was often dependent on disciplinary bodies’ judgments of how a sensitivity to a patient’s age, gender, and disability status matters for clinical practice. For example, family medicine trainees were more likely than internal medicine trainees “to rate sociocultural factors as relevant to clinical practice and perceive themselves as more competent in managing sociocultural issues.” Hence, the family medicine residents’ training appeared to have influenced their “perceptions of preparedness to deliver cross-cultural care.”

Similarly, in a mixed methods study of speech-language pathology students, their measure of cultural awareness was interpreted to enable them “to anticipate [patient] experiences” before encountering them.

**Labeling.** Labeling refers to the informal practice of stereotyping “deviant” cultures that hinder health care promotion and management. The “image of minority people reinforces the notion that they are a problem for the rest of society because of their inability to conform to white middle-class models of life.”

Consequently, health care professionals are inclined to perceive associated cultural differences as risk factors for a higher disease prevalence and problems to be managed. Analogous to how labeling directly stigmatizes those who do not comply with medical treatment, it indirectly validates those who conform to it. For example, a student noted, “… they did this whole cultural section and they made me so mad because it was multiple-choice. Depending on what the culture was, I had to say they would do this.”

**Becoming culturally competent.** The second theme reflects efforts at becoming culturally competent (Figure 3). Unlike in the first theme, this theme did not conceptualize culture as a problem; instead, it conceptualized CC as a process of cultivating individual (or personal) agency (see Supplemental Digital Appendix 1 at http://links.lww.com/ACADMED/B264) for reflexivity with others. This theme focused on “a process of becoming competent, rather than achieving competence,” which happens over time. Specifically, effort is required to see culture not as a tool, but as a lens through which one can reinterpret an individual’s preconceived “knowledge, understanding, [and] response to the environment, both social and otherwise.”

Howells et al supported this approach referring to Well’s Cultural Development Model, which suggests that CC occurs in phases from cultural incompetence to proficiency. Additionally, Marzilli asserted culture was an integration of the social aspects of the person, family, community, and global society and cited the Purnell Model for Cultural Competence. According to Marzilli, this approach asserts that culture originates not only from the social aspects of individuals but also from insight of individuals’ circumstances (e.g., family roles, health care practices).

Only 2 studies adopted a critical framework and acknowledged postcolonial ideas of power imbalances in health care relationships. One of the studies argued that health care services and educational institutions often adopt Anglo-Saxon norms, which supported colonial ways and marginalized Indigenous (i.e., naturally occurring or native) ways of knowing, being, and doing. The other argued that to become conscious of one’s implicit personal biases, individuals must be exposed to individuals from diverse ethnic and cultural backgrounds.

Uncovering one’s biases required that educators create a safe CC teaching environment. In doing so, educators could generate social interactions that cultivate reflexivity, which one could use to address countervailing social structures of identity and stigma.

**A safe CC teaching environment.** Educators used multiple modalities to expose students to diverse groups and teach CC (including problem-based learning); presentations; seminars, workshops, or clinical scenarios; and simulated learning. Instructors that invested time and effort into coaxing students to feel safe engaging in CC conversations apparently had the most success.

O’Brien et al stated, “exploring attitudes, practices, and behaviors in a safe, non-judgmental environment where both students and facilitators are not afraid of feeling uncomfortable, can create a greater awareness of the value of intercultural learning.”

Mentorship and role model relationships that were based on trust enabled a critical nonjudgmental stance, which was conducive to exploring assumptions instead of a self-critical evaluative lens. Moreover, guidance was essential for cultivating openness and cognitive flexibility (see Supplemental Digital Appendix 1 at http://links.lww.com/ACADMED/B264), while showing empathy and patience and clarifying mutual concerns were required to discover common ground.

Students could defend their views as “critical friends” (a peer learning model) “irrespective of … cultural backgrounds … critical friends may develop cultural awareness … [through] mutual trust in a non-hierarchical context.” Furthermore, incentivizing working with others (including through graded group work and educational credits) could promote cross-cultural interactions and shared decision making among students.

**Social interactions that cultivate reflexivity.** This subtheme was made up of 3 parts: (1) building insight toward self and cognitive flexibility toward the other, (2) countervailing social structures of identity and stigma, and (3) immersion for application of reflexivity.

It was crucial that social interactions take place within a safe CC teaching.
environment. Campinha-Bacote emphasized that clinicians’ beliefs could unduly influence patient decisions; however, clinicians could modify their practice through inward reflection on their actions. Howells et al summed it up by stating, “It can be argued that the ability to transition between culturally and linguistically diverse contexts requires constant reflective practice.”

Building insight toward self and cognitive flexibility toward the other. For postgraduate students, reflexivity, which incorporated insight and cognitive flexibility, was the most pronounced mechanism that enabled cultural reinterpretations of power imbalances in health care relationships. For instance, an American medical resident stated, “[submerging ourselves] into their situation … that was pretty [much] like an eye-opener […] for me.” Thus, cognitive flexibility, or acknowledging one’s cultural beliefs and their effect on one’s behaviors, is necessary to adapt to others’ situated context. Moreover, an emphasis on immersion that incorporated service learning—a form of cultural immersion—achieved short-term outcomes related to advocacy and culturally responsive care.

Countervailing social structures of identity and stigma. Managing one’s own socially constructed identities and the hidden stigmas associated with those identities was critical. For instance, the aim of having intercultural debates counteracted achieving CC in many cases due to unacknowledged threats of identity and stigma: “Clustering in monocultural groupings was not intentional but was often the result of students feeling pressured to achieve academic objectives.” Moreover, students were concerned that recounting experiences of marginalization may offend others or be unwanted. Daniel stated, “Minority students quickly get the message that speaking up in class about oppression and racial issues is risky and undesirable.” Students tried to manage their identity, concealing their cultural heritage: “I think sometimes they’re [Aboriginal students] kind of reluctant to come forward and talk about their heritage and be proud of it because they are people that have the stigma associated with it.” Particularly, when students lacked opportunities to explore differing opinions, some perceived their knowledge, expertise, and levels of competence as superior to those of international students and consequently, “ethnocentric attitudes were not always effectively explored and in some cases were reinforced.”

Immersion for application of reflexivity. Without training to cultivate insight and cognitive flexibility, age, gender, years of clinical experience, ethnicity, and nationality did not significantly influence CC. In other words, clinicians who reported having more cultural knowledge did not necessarily report feeling more comfortable practicing CC with patients. Essential to developing CC was insight—critically reflecting on one’s values and beliefs about intersections of race, class, and gender. Insight prompted one to question their own identity in relation to others: “I was surprised how much I gained from hearing [from] others, which helped me think more about myself and my beliefs.” In contrast, a social work student expressed disbelief about how they were portrayed in the classroom: “I was in class one time, … it got so bad I wanted to say, … wait a minute that’s me you are describing in those terms. … Before I got here, I did not know that being black was bad. It makes me wonder if you are not black what you think being black is.”

Flexibility was particularly essential when teachers’ awareness of their own ethnic and subcultural background or standards were seen to ethnically conflict with students’ norms and values. Indeed, if teachers could demonstrate cognitive flexibility, they could better meet expectations to “include all students regardless of their ethnic, cultural or social background, in their teaching.”

Discussion

Our findings suggest that CC conceptualizations in postgraduate health and social science education tend to follow professionalized assumptions of ethnic, racial, or national parameters on cultural disease trends. This informs health professionals’ attitudes and behaviors. As such, CC is often framed to use prescriptive cultural information that prompts othering and results in labeling to fulfill mandatory professional and legal requirements and internationalization. This leads to the reinforcement of cultural differences, culture being seen as a problem, and to the marginalization and systematic oppression of others due to race, ethnicity, or cultural background.

In terms of CC training, our findings confirm those of previous studies, which described educational approaches as sometimes “over-generalizing, simplistic and impractical” and “[failing] to realize meaningful outcomes in health care settings.” Thus, CC education may present CC as a product embedded with ethnocentric ideas that interfere with educational quality, thereby inadvertently perpetuating cultural racism against outgroup members. As Viruell-Fuentes et al argued, “othering processes produce and reproduce marginalization, disempowerment and social exclusion.”

Our review also revealed another approach whereby CC may precede preconceptions of culture and culture is not defined as a problem. This reflects a culturally interpretative view that is found in international business literature, which facilitates innovative work behavior. Indeed, cultural intelligence is proposed as having a mediating role to CC as it is seen as “a capacity to adapt by shifting across interpretive lenses, in response to important culturally based cues.” Kozlilus et al found that the absence of CC predictors (e.g., aptitude) and cultural knowledge of environments were associated with business failures. Similarly, Hordijk et al suggest “reflexivity cannot be achieved without awareness of the context in which students’ norms and values exist, as well as awareness of a teacher’s own ethnic and (sub)cultural background/standards.” Indeed, constructs of labeling and othering reflect the colonial racialization of institutions, whereas reflexivity potentially reveals a way to circumvent these biases and promote health professionals’ CC.

Unlike most literature reviews, our review extends the understanding of CC beyond conceptualizations of knowledge and awareness, to how insight, cognitive flexibility, and reflexivity contribute to cultural humility and CC. Further, our review highlights how insight, cognitive flexibility, and applications of reflexivity have the potential to help address countervailing social structures.
of identity and stigma. Markova and Berrios distinguish a definition of “awareness” as narrow (quantitative) knowledge of a deficit, loss, or impairment—essentially a problem—from “insight” as a wider (qualitative) construct of how phenomena (and their underlying mechanisms) occur. Indeed, in contrast to this definition of awareness, the “boundaries [of insight] are not well demarcated and constituents depend not only on experiential changes but on outside factors including social, cultural, educational, etc. [factors].

Henderson et al.’s study of the CC concept in community health care contexts revealed that insight is a key antecedent of CC. They proposed that insight encompasses empathy, openness, curiosity, flexibility, and a willingness to reflect and is required for the development of a “capacity for a higher level of moral reasoning.” Comparatively, an understanding of one’s ethnoculture, beliefs, and behavior is necessary to analyze and evaluate them against “normative” ways of being. Without insight, one may not “recognise discrimination, stereotypes, or prejudiced, and may not understand Western medicine as a constraint” to other cultures. In other words, contextual (i.e., cultural and structural) conditioning can potentially motivate or impinge on one’s developing CC, dependent on the individual’s insight, cognitive flexibility, and reflexivity, all of which are interdependent.

Nilson found that reflexivity was integral to both her self-identity and gaining insight and acceptance of her biases and assumptions about Indigenous women in Southwestern Australia. For Nilson, reflexivity is “a tool to examine and contextualize judgements, presumptions, and preconceptions, which positions oneself to be open to differing viewpoints and actively explore alternative perspectives.” We suggest that reflexivity is required to normalize negative emotions in a nonjudgmental way; nurture mutual aid; and establish solidarity, collective responsibility, and reciprocity to build a collective identity with others. Indeed, the discovery of common goals created ground for individuals to overcome their resistance to CC and experience group cohesion.

We assert that creating opportunities for real-world learning can advance health professionals’ reflexivity, if cultural safety is present in the learning environment. Curtis et al. argue that cultural safety should be the preferred goal, not CC. Students need cultural safety to search for “truth” and embrace credible knowledge of differences and diversity in their thinking, before adopting mainstream cultural norms. Students also require cultural safety “to critique the ‘taken for granted’ power structures and be prepared to challenge their own culture, biases, privilege and power rather than attempt to become ‘competent’ in the culture of the other.” This is consistent with our findings, and we call for safe learning environments to cultivate insight and cognitive flexibility, as well as to rebuild one’s identity in relation to others’ identities, which are distinct and equally compelling to one’s own. Without this critical consciousness, postgraduate students tend to implicitly reconstitute, rather than resist, the oppressive powers that enact social injustices.

**Implications**

Academic leadership may need to reconsider their approach to CC in postgraduate health and social science curricula, so as to stop “a system of racism […] flourishing and … undergirding” both institutional- and individual-level discrimination. Thus, CC learning outcomes need to be made explicit to address the structural and relational problems causing health inequities. This may include practicing cultural immersion (in simulated or real settings) to address real-world power struggles in the clinical context.

Future research should explore: (1) the extent to which insight, cognitive flexibility, and reflexivity, taught in safe teaching environments, are associated with increasing students’ cultural safety, cultural humility, and CC; (2) the processes (including how, why, for whom, and when) during which insight, cognitive flexibility, and reflexivity occur to mitigate power imbalances between clinicians and their patients and families; and (3) the processes that develop reflexivity toward CC—as part of “transformational unlearning”—that allow one to be receptive to, recognize, and grieve that one has deeply held assumptions of oneself and the colonized world. Only when postgraduate students have insight into the process of transformational unlearning, can they start to challenge the deeply ingrained social structures that stigmatize (their own and others’) identity and hinder their clinical effectiveness.

**Limitations**

The findings of this review are specific to postgraduate health and, to a lesser extent, social science students in developed countries and, thus, may not be transferable to other contexts. Further, the inclusion of only English articles may contribute to an Anglo-centric interpretation of CC that is potentially not applicable to contexts that do not share similar cultural norms. Moreover, we did not focus on specific interventions associated with teaching CC (including cultural immersion).

**Conclusions**

Our review suggests that CC conceptualizations in postgraduate health and social science education tend to view cultural differences as a problem and CC skills as a way to mitigate differences to enhance patient care. However, this generates a focus on the other, rather than a focus on the self. Insight and cognitive flexibility are 2 processes that, when taught in culturally safe teaching environments, encourage cultural humility and reflexivity. Using reflexivity, one can develop their critical consciousness, which informs their moral reasoning and actions in a way that may demonstrate expressions of CC with others. As Camphina-Bacote stated, CC is a process of striving to become CC, rather than being CC; thus, we assert that reflexivity skills must be dynamic, as CC is a lifelong learning journey.

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### Appendix 1

**Brief Description of the Included Studies in a 2020 Integrated Systematic Review of the Literature on CC**

| Author(s), year | Country | Sample | Design | CC definition | Educational approach | Conceptual or theoretical framework for/of CC | Quality appraisal rating |
|-----------------|---------|--------|--------|---------------|---------------------|-----------------------------------------------|--------------------------|
| Aleksejuniene et al, 2014 | Canada | 106 predoctoral and 33 recent dental graduates | Cross-sectional survey | Not stated but implied: “Dental graduates must be competent at managing a diverse patient population and have the interpersonal and communications skills to function successfully in a multicultural work environment” (p. 390) | Not stated | Designed by authors composed of 5 domains | Satisfactory |
| Alpern et al, 2016 | US | 199 residents in internal medicine and pediatrics | Cross-sectional survey | Not stated but implied: “Ability to provide care to immigrant and refugee populations by including PTSD, migration, torture, travel, and refugee camp experiences and learning to communicate effectively in evaluation of preparedness” (p. 1) | Not stated | 3 factors: attitudes toward immigrants/refugees, personal experience when caring for immigrants/refugees, and medical education (preparedness) | Good |
| Bauer and Bai, 2018 | US | 34 graduate nutrition counseling students | Pre- and post-test based on a CC inventory (cohort) | “The Office of Minority Health defined cultural and linguistic competence as ‘a set of congruent behaviors, attitudes, and policies that come together in a system, agency, or among professionals that enables effective work in cross-cultural situations’ …” (p. 2) The Campinha-Bacote Model states “cultural competence is ‘a process of becoming culturally competent, not being culturally competent.’” (p. 2) | Classroom interventions | Campinha-Bacote Model | Good |
| Carpenter and Garcia, 2012 | US | 29 undergraduate nursing students and 6 MSc and PhD students | Mixed methods, with pre-, during, and post-intervention test | “as having four components: cultural awareness (affective dimension), cultural sensitivity (attitudinal dimension), cultural knowledge (cognitive dimension), and cultural skills (behavioral dimension)” (p. 85) | International experiences abroad | Campinha-Bacote model | Excellent |
| Chun et al, 2009 | US | 4 surgical residents and 18 faculty members | Qualitative | “Have respect for patients’ health beliefs, understand the biopsychosocial context in which patients experience illness, and develop a mutually agreeable treatment plan” (p. 368) | Not stated | Not stated | Good |
| Creech et al, 2017 | US | 22 faculty members teaching 34 courses | Pre- and postcurricular intervention survey (cohort) | Not stated but implied: “preparing the graduate to … synthesize concepts, including psychosocial dimensions and cultural diversity … in developing, implementing, and evaluating interventions” (p. 333) | Addition of at least one CC objective and associated content in all courses; educational approach was not stated but assistance from experts with graduate education in transcultural nursing and extensive teaching experience was available | Cultural competence content is recurring or spiraled in the curriculum to allow knowledge levels to increase over time.” (p. 334) This framework was originally developed by Jerome Brunner. | Good |
| Daniel, 2011 | US | 15 social work master’s students | Grounded theory method using semistructured interviews | Not stated | Instruction on multiculturalism | Not stated | Good |

(Appendix continues)
| Author(s), year | Country | Sample | Design | CC definition | Educational approach | Conceptual or theoretical framework for/of CC | Quality appraisal rating |
|----------------|---------|--------|--------|---------------|---------------------|----------------------------------------------|--------------------------|
| DeBonis, 2016  | US      | 152 graduate students in nurse practitioner and nursing education tracts | Surveys pre- and postservice learning (cohort) | “Process of continually increasing understanding of different groups, along with factors that influence attitudes and behaviours” (p. 36) | Service learning | Not stated | Excellent |
| Diaz et al, 2015 | US | 26 master’s students, 35 college students, 24 university faculty, and 17 clinical educators in nursing | Mixed methods (self-report survey and qualitative data) | “The capacity to identify, understand and respect the values and beliefs of others” (p. 23) | Not stated | Purnell Model for Cultural Competence and Campinha-Bacote model | Satisfactory |
| Domenech Rodriguez et al, 2019 | Australia | 216 physician assistant students | Cross-sectional survey | “The ability of healthcare professionals to communicate with and effectively provide high-quality care to patients from diverse sociocultural backgrounds” (p. 2) | Exercises to address CC training and burnout prevention | Betancourt model | Satisfactory |
| Elliott et al, 2016 | Ireland | 7 DNP students | Mixed methods (survey given 2 weeks after intervention and qualitative questionnaire for in-depth reflections) | “Concept of cultural awareness, knowledge, skills and attitudes” (p. 226) | Team debate | Not stated | Excellent |
| Forsyth et al, 2019 | Australia | 13 dentistry academics | Qualitative (semistructured interviews) | Not stated | Education provided about Indigenous CC | Social determinants of health, social justice, and human rights frameworks; higher education principles; and decolonizing methodologies | Good |
| Green et al, 2008 | US | 1,467 medical residents in 3 primary care specialists | Cross-sectional survey | “The ability to provide high-quality, effective health care to patients from diverse sociocultural backgrounds” (p. 1071) | Not stated | Not stated | Excellent |
| Greer et al, 2007 | US | 1,150 primary care residents | Cross-sectional survey | “The skill for providing quality care to diverse populations, such as assessing patients’ understanding of illness, identifying and addressing mistrust and caring for patients with limited English proficiency” (p. 1107) | Not stated | Not stated | Excellent |
| Howells et al, 2016 | Australia | 60 master’s of speech-language pathology students | Cross-sectional survey | “Cultural competency in SLP [speech-language-pathology] requires clinicians to understand and appropriately respond to any number of cultural variables that a client may present with, including age, beliefs, ethnicity, linguistic background, national origin, race and religion” (p. 260) | Not stated | Campinha-Bacote model | Good |
| Author(s), year | Country | Sample | Design | CC definition | Educational approach | Conceptual or theoretical framework for CC | Quality appraisal rating |
|----------------|---------|--------|--------|---------------|---------------------|------------------------------------------|------------------------|
| Hunter and Krantz, 2010 | US | 76 master’s nurse students, educators, and administrators | Pre- and postsurvey (cohort) | No definition stated but reports CC is based on the Campinha-Bacote model | Constructive learning theory from field of education | Campinha-Bacote model | Satisfactory |
| Jacobs et al, 2019 | US | 47 family medicine residents | Pre- and postsurvey (cohort) | “a knowledge-based approach to diverse cultural beliefs, values, and behaviors” | Seminars only or seminars and workshops | Not stated | Excellent |
| Krajewski et al, 2008 | US | 35 medical residents | Pre-and postintervention test (cohort) | Not stated | 2-part lecture to introduce CC skills and examples | Betancourt model | Good |
| Leung et al, 2017 | Sweden and HK | 8 doctoral nursing students | Qualitative | “learning to work with people from diverse cultural backgrounds, using interpersonal communication, relationship skills, and behavioral flexibility” (p. 526) | 5 live webinars | Social constructionism | Excellent |
| Lopez et al, 2008 | US | 2,047 resident physicians from 7 specialties | Cross-sectional survey | “Ability to bridge the ‘cultural distance’ that exists between physicians and patients” (p. 1953) | Not stated | Betancourt model | Excellent |
| Marenco and Hart, 2014 | US | 150 undergraduate and 215 postgraduate nurses | Prospective cross-sectional survey | No definition stated but reports the Campinha-Bacote model was used to explore “the differences in cultural desire, awareness, knowledge, skills, and encounters” (p. 84) | Not stated | Campinha-Bacote model | Excellent |
| Marzilli, 2016 | US | 89 faculty from a Texas nursing school | Concurrent mixed methods (descriptive statistics survey and telephone interviews analyzed using grounded theory) | “Acting in a manner that acknowledges the cultural background of another individual and tailoring the attitudes and behaviors of the individual providing care” (p. 225) | Not stated | Purnell Model for Cultural Competence | Satisfactory |
| McElfish et al, 2018 | US | 98 students from medicine, nursing, and pharmacy | Mixed methods (pre- and post-test and focus groups) | Not stated | Two 60-minute presentations and/or educational seminars, clinical experiential learning in a student-led clinic, and community-based service learning over 6 months | Not stated | Good |
| McHenry et al, 2016 | US | 44 pediatric and family medicine residents | Mixed methods (pre-and postintervention survey and open-ended questions to describe experiences) | Not stated | 30-minute module as a live or online presentation providing information about Burmese refugees | Not stated | Satisfactory |

(Appendix continues)
### Appendix 1 (Continued)

| Author(s), year | Country | Sample | Design | CC definition | Educational approach | Conceptual or theoretical framework for/of CC | Quality appraisal rating |
|----------------|---------|--------|--------|---------------|---------------------|---------------------------------------------|--------------------------|
| Mechanic et al, 2017 | US | 73 ER residents and faculty | Cross-sectional survey | “System that acknowledges and incorporates the importance of culture, assessment of cross-cultural relations, vigilance toward the dynamics that result from cultural differences, expansion of cultural knowledge, and adaptation of services to meet culturally unique needs” (p.392) | Web-based modules and lectures or didactics, journal club, simulations, and community immersion | Not stated | Good |
| Mills et al, 2016 | US and Canada | 74 general psychiatry residents | Pre- and post-questionnaire to measure CC (cohort) | Not stated | 1-hour session including a didactic lesson with PowerPoint slides adapted from Lim et al | Not stated | Excellent |
| Nduwame et al, 2014 | US | 29 first-year graduate nursing students in an accelerated master's-degree program | Pretest, post-test, and final evaluation (cohort) | Not stated | Pretest, didactic introduction to culturally sensitive issues, and video-recorded OSCE with 2 ethnically diverse standardized patients | Not stated | Satisfactory |
| O'Brien et al, 2019 | Ireland | 14 postgraduate nursing students | Qualitative (semistructured interviews) | Not stated | Modules coscheduled with international students | Not stated | Excellent |
| Kowal and Josephson, 2017 | US | 47 neurology residency program directors | Cross-sectional survey | Not stated | Blueprint for Integration of Cultural Competence in the Curriculum Questionnaire teaching guide and measurement tool | Not stated | Excellent |
| Sumpter and Carthon, 2011 | US | 507 undergraduate nursing students, 56 doctoral nursing students, and 56 faculty | Qualitative (focus groups) | Not stated | Opportunistic training at workplace supervised by GP | Not stated | Excellent |
| Watt et al, 2015 | Australia | 14 GP supervisors | Qualitative (interviews) | “a set of consistent behaviours, attitudes and policies that enable a system, agency or individual to work within a cross-cultural context or situation effectively” (p. 1) | Opportunistic training at workplace supervised by GP | Not stated | Excellent |
| Yao et al, 2016 | US | 208 plastic and reconstructive surgeons | Pretest and postintervention survey (cohort) | Not stated | 2-week experience that included a surgical mission, with a follow-up debriefing meeting | Not stated | Satisfactory |

Abbreviations: CC, cultural competence; US, the United States; PTSD, posttraumatic stress disorder; HK, Hong Kong; ER, emergency room; OSCE, objective structured clinical examination; GP, general practice.

*Quality appraisals were conducted by 2 researchers (C.L.K.J., D.Y.L.L.) using the following study design tools: Critical Appraisal Skills Programme (for cohort and qualitative studies), Mixed Methods Appraisal Tool (for mixed methods studies), and the Critical Appraisal Tool (for cross-sectional studies). There were 10 questions in each tool. A judgment of “yes” equated to a score of 1, a judgment of “not apparent” equated to a score of 0, and a judgment of “no” equated to a score of −1. Thus, scores could range from 10 to −10. Studies were excluded if they did not meet a minimum score of 1 or if they received a judgment of no to any question about the clarity of the research question(s) and/or about the use of an appropriate research methodology to address the research question(s). A total of 58 studies were excluded for not meeting the minimum standard of quality. For the ratings, scores of 0 or below were deemed unsatisfactory, scores of 1–4 were deemed satisfactory, scores of 5–8 were deemed good, and scores > 8 were deemed excellent.*