Bridging the gap between physician and medical student education: using the Train the Trainer model to improve cultural competence training in the clerkship years of medical school

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Abstract: Cultural competence (CC) training has become a required part of medical education to create future physicians dedicated to decreasing health disparities. However, current training seems to be inadequate as research has demonstrated gaps between CC training and clinical behaviors of students. One aspect that is potentially contributing to this gap is the lack of physician education of CC. Without it being something not only taught in the classroom, but also modeled and taught in the clinical setting, CC will continue to be a theoretical concept instead of a skill set that changes the way that future physicians interact with patients and make decisions about patient care. To change this, we propose the implementation of a Train the Trainer model in which the preclinical professor in charge of CC education trains Clerkship and Residency Directors who then can train and supervise the physicians and residents in their departments on CC to better implement it into the formal and informal curriculum of clerkships.

Keywords: cultural competence, Train the Trainer, physician education, undergraduate medical education, health disparities, clerkship curriculum

Introduction
The unprecedented Institute of Medicine (IOM) 2002 report “Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care” revealed, especially to the medical community, the true pervasiveness of health disparities. Although the concept of cultural competence (CC) made its way into the literature in the early 1990s, it was not until the IOM’s report that CC became widely implemented into undergraduate medical education (UME) in hopes of combating health disparities. Along with this trend, the Liaison Committee on Medical Education has made cultural competence a requirement in all undergraduate medical curriculums in the USA.

CC can be defined as a healthcare provider’s (eg, a physician) understanding of how their own culture and the patient’s culture can influence the patient–physician relationship along with the patient’s health, behaviors, and decisions, and applying this knowledge to communicate with patients more effectively to deliver personalized care and ensure the best health outcomes.

It has been 15 years since the IOM’s report and CC training made its way into medical education and little has changed. The Agency for Healthcare Research and Quality’s most recent 2015 Report on Quality and Disparities showed that although some are improving, the majority of health disparities based on race and socioeconomic status are unchanged and, for some measures, are worse.
Not only have health disparities remained largely unchanged, but several studies support that CC training has been partially unsuccessful in creating physicians who feel, and act, prepared to interact with patients different than themselves. In a survey of recent medical school graduates, about a fourth of graduates felt unprepared to provide cross-cultural care.\(^\text{9}\) One group of researchers found 20\% of residents feel they possess low skills in CC.\(^\text{9}\) Balzora et al assessed the CC levels of gastroenterology fellows and found only 18\% were successful in identifying the health literacy of a patient in a standardized case even though 73\% of the fellows reported training on CC during medical school.\(^\text{10}\) Another survey similarly also found a disconnect between medical student knowledge of CC and displaying congruent behaviors.\(^\text{11}\) Many educators and researchers have tried to offer explanations and solutions as to why CC training has been ineffective in medical education. Some believe it is the way in which CC is taught, that it needs to be more focused on humility, understanding personal biases, and intersectionality of social identities.\(^\text{12,13}\)

Although these suggestions are substantiated and helpful, there is still one large pitfall to CC education in UME: many programs lack CC education in both the formal and the informal curriculum of the clerkship years.\(^\text{4,14–16}\) This is a significant barrier to successful CC training as many studies have shown that the clerkship years are the most influential part of UME.\(^\text{17}\)

Specifically, the informal curriculum, or the students' interpersonal interactions with physicians and residents as well as their observations of clinician-patient interactions, appears to be highly influential on student learning.\(^\text{17}\) This is exemplified in Wimmers et al, who showed quality of supervision was the most crucial factor to student learning and clinical competence.\(^\text{18}\) Another study found a link between clerkship experiences and patient stereotyping among medical students.\(^\text{19}\) These studies bolster the evidence that the clerkship years, and the faculty in-charge of student learning in those years, are critical in shaping a medical student's perspective and how they will view, and potentially treat, their future patients.

### The gap between physician and medical student knowledge on CC

The common denominator that is potentially preventing CC incorporation into both the formal and the informal clerkship curriculum is physicians' lack of knowledge and skill in being culturally competent clinicians and educators. Evidence shows that current physicians may not be prepared to deliver CC training to medical students.\(^\text{20}\) In a survey of physicians at teaching hospitals, most physicians were unable to define CC and stated they felt uncomfortable discussing ways to practice CC with trainees.\(^\text{20}\) Furthermore, researchers note that many hospitals lack faculty expertise and faculty development addressing CC and health disparities, making this a significant barrier in incorporating CC training into clerkships.\(^\text{21}\)

The lack of education on CC in clinicians who interact with students extends to residents as well. Currently, CC training is not uniformly taught in residency programs.\(^\text{4}\) Residents play a large role in how medical students are formally and informally taught during their clerkships. Teaching of medical students is even required by The Accreditation Council for Graduate Medical Education.\(^\text{22}\) Therefore, if residents are not learning and practicing CC also, it is difficult for these skills to translate to medical students.

This lack of knowledge by physicians and residents also appears evident to students, as several medical student surveys revealed most students felt their faculty needed CC training and many medical students even rated their CC proficiency higher than that of their attending physicians and residents.\(^\text{23,24}\)

If CC is not being modeled through informal interpersonal interactions between medical students, residents, and physicians, then medical students will never be able to learn CC as a skill set as opposed to a theoretical concept.\(^\text{9,19}\) Furthermore, if physicians and residents lack the proper education on the topic to teach and evaluate CC, then changing the clerkship formal curriculum will likely also be unsuccessful.

### The Train the Trainer (TtT) approach to educating physicians and residents

Currently, there are several demands on physicians' and residents' time, the idea of having to do intensive training in a subject may seem cumbersome. Instead of having each physician take a continuing medical education (CME) course or adding more requirements to the residents' curriculum, medical schools and their teaching hospitals can implement the TtT approach to teaching CC to all physicians and residents involved in teaching students.

TtT is a widely used model for disseminating information and skills in an efficient, yet successful way. The TtT model focuses on developing interactive workshops led by an expert in the field. These workshops not only teach knowledge on a subject but also focus on the implementation of a specific skill and the ability to teach that skill to others. This then allows
the group of attendees to go and lead similar workshops to distribute the knowledge as well as supervise the progress of those they teach.

Although classically a strategy used in corporate settings, the medical field has embraced this learning strategy and has found success using it. Many TtT modeled seminars found those who participated not only had significant increases in knowledge demonstrated by the change in their pre- and postevaluations, but were also successful in teaching the information to others. One study on a TtT training for end-of-life care found that after just a 16-hour workshop, the original 62 participants were able to conduct the workshop, or a modified version of it, to around 3,400 other individuals. Several studies have shown that when comparing TtT to self-study or traditional lecture-style CME training, TtT resulted in greater improvement in performance and adherence to the skill being learned.

In the single study of TtT being used to teach CC, survey results showed that after a 2-day training session, the faculty of a pharmacy school, 94% of which had never received CC training prior, felt significantly more confident in developing and teaching a CC curriculum. The self-reported assessment taken by the faculty showed that the group’s average ability and confidence to teach CC went up by 47% from pre- to postworkshop. In addition, those who attended the workshop reported incorporating one or more of the workshop’s aspects into their curriculum even 9 months after the workshop. This study gives even further support that TtT could be successful with medical school faculty.

In a medical school setting, the seemingly most efficient and cost-effective way to disseminate CC education in a TtT model would be to first utilize the experts already available: the professor(s) who are already in charge of teaching CC in the preclinical curriculum. These experts would put on a workshop or weekly training sessions with the Clerkship and Residency Directors of each department. A pre- and postevaluation of CC knowledge, skills, and confidence in teaching CC to others would be administered to ensure the Clerkship and Residency Directors were ready to distribute the information further. In addition, the faculty expert leading the initial TtT program could hold one-on-one sessions with the directors to allow for individualized assistance with creating a workshop for their respective department. Once this training was complete, the directors would then put on similar workshops for their residents and physicians as well as supervise and evaluate those in their department on their implementation of CC into their interactions and teaching of medical students.

This proposed model would not only allow dissemination of CC education in an efficient manner to a large population of physicians and residents, but also creates a structure in which those in departmental leadership can tailor the workshops to the needs of their specific specialty, and also be point-persons for those in their department to ensure all CC training does not fall onto the shoulders of one or a few sole faculty members as it can in medical schools.

Conclusion
Medical education is only going to be successful in teaching CC as not only a concept, but also a skill set, if medical students are constantly modeled and taught CC in the most influential part of their education: the clerkship years. This can only happen if the physicians and residents they interact with are educated and able to train them in CC. The TtT model can be an efficient and cost-effective way of training all medical school faculty and residents in CC. By using already available expertise, medical schools can create CC workshops that start with training Clerkship and Residency Directors and allow those directors to lead specialty-specific CC workshops in their respective departments. This is a needed step in making CC education for medical students more effective.

Next steps include initiating this proposed plan into a pilot program that implements this training. As a part of the pilot program, pre- and postraining evaluation of physician, resident, and medical student knowledge of CC and improvement in cross-cultural patient interactions should also be implemented to measure the effectiveness of the TtT trainings.

Disclosure
The authors report no conflicts of interest in this work.

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