

Cultural Competency Training for Third-Year Clerkship Students: Effects of an Interactive Workshop on Student Attitudes

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With an increasing awareness of health disparities, medical schools are challenged to develop training in cultural competency for their students. We developed and evaluated the effectiveness of an interactive workshop designed to improve third-year students' attitudes, beliefs and cross-cultural communication skills.

Methods: At the start of a six-week required family medicine clerkship, 196 medical students participated in small group (20–24 students) workshops. Didactics included facts about health disparities and a model of cultural competency. During a skill-building component, students were exposed to live vignettes portraying ineffective and effective cross-cultural doctor–patient interactions. Impact on students' attitudes, perceived bias and knowledge of techniques was assessed by comparing pre- and postworkshop scores.

Results: Participants increased their cultural awareness on most items of a cultural awareness scale. Fifty-five-, 71- and 66% of the sample agreed or strongly agreed the program was valuable, appropriate and effective, respectively. Conversely, only 17-, 6- and 9% of the sample disagreed or strongly disagreed, respectively.

Conclusions: A workshop for third-year students led to an increase in cultural awareness and was considered appropriate and valuable. Further study, including longitudinal training and evaluation, is needed regarding effective methods to increase cultural competence in clinical practice.

Key words: cultural competence ■ medical education ■ health disparities

© 2006. From American University, Washington, DC (Carter, Oswald) and Uniformed Services University of the Health Sciences, Bethesda, MD (Lewis, Sbrocco, Tanenbaum, Sykora, Williams, Hill). Send correspondence and reprint requests for *J Natl Med Assoc.* 2006;98:1772–1778 to: Dr. Lauren D. Hill, PhD, USU Center for Health Disparities Research and Education, 4301 Jones Bridge Road, B-3058; phone: (301) 295-0864; fax: (301) 295-3034; e-mail: lhill@usuhs.mil

INTRODUCTION

Elimination of health disparities is one of two overarching goals of Healthy People 2010¹ and could save more lives than technological advances.² In light of U.S. Census Bureau projections that racial/ethnic minority groups will comprise nearly one-half of the total population of the United States by 2050,³ eliminating racial/ethnic health disparities will become an increasingly critical public health concern. Consequently, medical students need training designed to prepare them to provide healthcare for diverse patient populations. The Institute of Medicine (IOM),⁴ the Society of Teachers of Family Medicine (STFM)⁵ and the American Academy of Family Physicians (AAFP)⁶ are among those emphasizing the need for culturally competent medical practice, the goal of which encompasses improvements in quality of care and patient safety as well as the elimination of healthcare disparities.

CULTURAL COMPETENCY EDUCATION STANDARDS

The Liaison Committee on Medical Education (LCME),⁷ which accredits U.S. medical schools, has established standards for cultural competence education, stating that medical school faculty and students:

must demonstrate an understanding of the manner in which people of diverse cultures and belief systems perceive health and illness and respond to various symptoms, diseases, and treatments. Medical students must learn to recognize and appropriately address gender and cultural biases

in themselves and others, and in the process of healthcare delivery.

Similarly, the Accreditation Council for Graduate Medical Education (ACGME) addresses cultural competency training for medical residents as an aspect of their professionalism competency.⁸

Unfortunately, cultural competency education and training are still not yet well integrated in many medical schools, and standards for curriculum or objectives have not been firmly established.⁹ Recently, the Association of American Medical Colleges (AAMC) developed a tool to assist medical schools in assessing cultural competence training in their curricula and to meet the LCME accreditation standards. The AAMC tool was informed by prior research and expert opinion,^{4,10-14} and provides specific components and learning objectives across five domains: 1) rationale, context and definition; 2) key aspects of cultural competence; 3) understanding the impact of stereotyping on medical decision-making; 4) health disparities and factors influencing health; and 5) cross-cultural clinical skills.¹⁵

Effects of Cultural Competency Training

One aspect of cultural competence in medicine necessitates the ability to acknowledge two potentially different reference points in physician–patient interactions, the ability to understand patients’ culturally rooted health beliefs and practices, and to negotiate treatment that aligns with patients’ cultural value systems.¹⁶⁻¹⁹ A variety of methods have been used to teach aspects of cross-cultural care in health professions. Educational outcome studies demonstrate that training has been successful in improving learners’ cultural awareness, sensitivity, knowledge and skills.^{4,9,16,19-21} Some of these studies specifically examine components of undergraduate medical curricula,^{16,20,22} including a year-long elective on cultural diversity.²¹ A 2005 review of 34 studies found “excellent” evidence that cultural competence training improves knowledge, and “good” evidence that it improves attitudes and skills of healthcare providers as well as satisfaction among patients.²³

Cultural Competency Training at Uniformed Services University

The Uniformed Services University of the Health Sciences (USU) established the USU Center for Health Disparities Research and Education (UCUSHD) with grant funding from the Excellence in Partnerships for Community Outreach, Research on Health Disparities and Training (EXPORT) Project of the National Institutes of Health National Center on Minority Health and Health Disparities (NCMHD). The USUCHD aims to design and implement a series of research, education, minority student mentoring and community outreach initiatives to reduce health disparities. One part of this

effort is the development and implementation of a cohesive, four-year cultural competency curriculum for medical students. The Cultural Proficiency Workshop (CPW), which is one part of the curriculum, is a three-hour workshop that employs a combination of didactic, interactive and experiential teaching methods. The CPW focuses on cultural issues related to healthcare and provides tools to translate knowledge into practice in real-world interactions with patients. The CPW was implemented as part of a required, six-week family medicine clerkship, and based, in part, on the Topic Learning Goals and Objectives as outlined in the STFM Family Medicine Clerkship Curriculum Resources for Culturally Responsive Health Care.⁵ A pre- and post-Cultural Attitudes and Beliefs Scale (CABS), a pre- and post-knowledge test and a course evaluation were developed for the CPW. The aims of the current study were: 1) to examine the effect of the CPW on students’ attitudes and beliefs; 2) to examine the internal factor structure of the CABS; and 3) to explore the relationship between course evaluation ratings and changes in learners’ awareness, attitudes and beliefs.

METHOD

At the beginning of a required, six-week family medicine clerkship, third-year medical students’ cultural attitudes and beliefs were evaluated pre- and post-CPW using the CABS, which was developed after a careful review of the available educationally oriented cultural competency literature, discussions with family practice physicians and residency directors, and refining the specific learning objectives for the workshop. Pre-, post- and self-assessment methods were chosen because they are widely used to examine self-reported attitudes and what students have learned in classroom settings. Students attended the CPW in small groups of 20–24 students per round, across the eight clerkship rounds comprising the third medical school year. Data for the current study were collected across 1.5 academic years. The study was approved by the university’s institutional review board (IRB). The goals of the CPW were: 1) to increase awareness about health status and healthcare disparities, 2) to improve attitudes and beliefs about the role of cultural factors in the delivery of medical care, and 3) to enhance patient–provider cross-cultural communication skills. Training session components are outlined in Table 1. The workshop included didactics on health disparities and cultural competence; interactive student self-assessment exercises; tools for interacting with culturally diverse patient groups; and a skill-building, experiential learning component involving student role plays with trained actor/facilitators.

Outcome Measurements: Cultural Attitudes and Beliefs Scale

The CABS is an 11-item scale designed for this study to assess participants’ cultural attitudes and beliefs. It

contains items that ask about the participants' general and professional bias as well as their beliefs about cultural competency (Table 2, CABS items). Each item was rated on a Likert scale anchored by 1 (strongly disagree) and 5 (strongly agree). Items 1, 5 and 11 were reverse scored. Identical versions of the CABS were administered pre- and postworkshop. The internal consistency reliability was 0.36 and 0.49 for the pre- and postworkshop CABS, respectively. The somewhat low reliability coefficients suggested the scale was multidimensional. As such, separate factor analyses were conducted on both versions and are reported in the results section.

Program Evaluation

Students were asked to rate how valuable, appropriate and effective they thought the course was overall on Likert scales ranging from 1 (strongly disagree) to 5 (strongly agree). The program was also evaluated with a series of open-ended questions, including what participants liked best, what they learned that would be most helpful professionally or personally, and what would make the course more effective. Only the Likert ratings were analyzed for this study.

RESULTS

Data were collected during an 18-month period over two academic years from 196 third-year medical students who attended the three-hour CPW. Demographic information was not collected to protect student

anonymity. Our medical school demographics, which approximate this sample, are 79% male and 21% female with an ethnic/racial composition as follows: Caucasian (77%), 16% Asian, 2% African American, 1% American Indian and 4% classified as "other."

To examine the components of the CABS, first, individual items were compared pre- and post-CPW, and then a factor analysis was conducted on each administration of the scale. Comparisons of individual items of both versions of the CABS were made using paired Student's *t* tests.

As indicated in Table 2, all items changed significantly from pre- to postworkshop (all *p* values <0.05) except items 3, 4, 7 and 9, though there was a strong trend for items 4, 7 and 9 (all *p* values <0.056). This indicates that the workshop produced movement in the expected direction in all but item 3.

Using the Statistical Package for the Social Sciences® (SPSS), we conducted an exploratory factor analysis (EFA) (principal components analysis with oblique rotation—assumes some overlap among the extracted factors) for the preworkshop CABS. As determined by an examination of the scree plot and eigenvalues greater than 1, the EFA indicated the presence of three internally consistent factors (Table 3).

Factor 1 consisted of items 1, 5, 10 and 11 (Table 2). Examination of the items of this factor suggested it captured cultural beliefs regarding medical treatment. The second factor consisted of items 7–9. These items cap-

Table 1. Components of the three-hour cultural proficiency workshop for third-year medical students during a required family medicine clerkship

1. **Didactics on health disparities.** Introduce basic information on health status and healthcare disparities and cognitive factors related to racial/ethnic bias in medical decision-making. Introduce the importance of understanding patient and provider cultures in delivering optimal healthcare.
2. **The "cultural continuum" self-evaluation exercise.** Students define and explore their own self-described level of cultural competency.
3. **Didactic on cultural competence.** Introduce the T.L. Cross model of Cultural Proficiency with examples of each stage.
4. **The "Who Am I?" self-exploration exercise.** Students participate in a facilitator-guided but peer-focused small group discussion (6–8 students) to identify their multiple cultural identities, including racial/ethnic and religious group affiliations.
5. **Observation and analysis of an ineffective patient–physician interaction.** Students observe actor/facilitators and identify the key components of an ineffective cross-cultural medical encounter, focusing on aspects of the interaction related to communication skills and shared decision-making.
6. **Introduction of frameworks to enhance cross-cultural communication in medical care.** The LEARN and ETHNIC mnemonics.
7. **Student directed coaching for physician and patient actor/facilitators.** Students develop a plan using LEARN and ETHNIC and coach both the "physician" and "patient" in preparation for their next medical encounter.
8. **Observation and analysis of an effective patient–physician interaction.** Students observe actors and identify the key components delivered in the effective interaction.
9. **Skill-building via experiential training.** Students assume the role of the "physician" and practice using cross-cultural awareness, knowledge and communication skills by interacting with the actor/facilitator "patient."
10. **Summary and course evaluation.**

tured self-awareness of cultural bias. Factor 3 consisted of items 3, 4 and 6, and reflected self-rated cultural competence in medical treatment.

The analysis for the postworkshop CABS also indicated three distinct factors (Table 4). Similar to the first administration of the CABS, factor 1 from the second administration of the CABS consisted of items 1, 5, 10 and 11. The second factor consisted of items 7–9. Unlike the preworkshop CABS, item 2 for the postworkshop CABS loaded onto factor 3 (items 2–4 and 6).

While a change was noted between the factor analyses of the CABS, this is likely minor and most likely reflects a change in participants' perception of themselves on this item. Given that the items that comprise factor 1 were common between administrations of the CABS and that minor differences in the factor structure were noted on the other two factors, pre-to-postcomparisons were limited to factor 1. It should be noted that the internal consistency for factor 1 was 0.61 and 0.64 for

the preworkshop CABS and postworkshop CABS, respectively. It should be noted that the relatively low internal consistency is likely due to the low number of items in each of the extracted subscales of the CABS.

On factor 1, Cultural Beliefs Regarding Medical Treatment, differences were noted in the expected direction and reflected a positive change regarding cultural beliefs about medical treatment (premean = 14.18, standard deviation (SD)=2.98 vs. postmean = 15.55, SD=2.90; $p<0.05$). This change can be seen for each of the four individual items making up factor 1. For three of these items (1, 5, 11) student ratings were approximately 4 (agree), suggesting endorsement of these statements. Though there was movement on item 10, reflecting more importance on cultural competency relative to technical competency initially, the mean rating was still a rating of <3 (neither agree/disagree), suggesting students felt technical competence was more important.

On factor 2, Self-Awareness of Cultural Bias, differ-

Table 2. Cultural Attitudes and Belief Scale item differences

CABS Item Number	Score				
	Preworkshop Mean (SD)	Postworkshop Mean (SD)	t	df	Sig. Two-Tailed
1. <i>A particular lifestyle or culture is irrelevant when it comes to good medical care</i>	4.00 (1.13)	4.24 (0.99)	-3.732	174	0.000*
2. I am an unbiased individual	2.95 (0.95)	2.73 (0.96)	3.513	174	0.001*
3. I am likely to behave in a culturally competent manner when seeing patients	3.72 (0.80)	3.70 (0.66)	0.000	175	1
4. I believe I am aware of my biases	3.70 (0.69)	3.58 (0.70)	1.944	174	0.053
5. <i>I believe that race, religion and culture should play little or no part in the assessment and treatment of patients</i>	3.80 (1.17)	4.09 (0.96)	-3.944	175	0.000*
6. I have a variety of techniques that I can use to help treat patients from diverse backgrounds	2.81 (0.99)	3.26 (0.86)	-6.210	175	0.000*
7. I relate to patients differently depending on their race, religion and culture	3.15 (0.87)	3.29 (0.84)	-1.924	175	0.056
8. My professional behavior is influenced by subtle and obvious biases	2.85 (1.05)	3.16 (0.88)	-3.871	175	0.000*
9. There are some patients towards whom I am likely to show a negative bias	2.90 (1.09)	3.12 (1.02)	-1.888	173	0.061
10. At least initially, cultural competency is more important than technical competency	2.53 (1.06)	2.79 (1.18)	-4.412	175	0.000*
11. <i>Culture is only important to consider in nonemergent situations</i>	3.85 (1.04)	3.96 (1.03)	-2.361	176	0.019*

Items were rated from "strongly disagree" to "strongly agree." Items 1, 5 and 11 in italics are reverse scored. Scale ranges from 1 ("strongly disagree") to 5 ("strongly agree"). Alpha=0.05/11=0.0045.

ences were noted, indicating a change in the expected direction (premean = 8.89, SD=2.23 vs. postmean = 9.56, SD=1.99; p<0.05). As indicated in Table 2, the change in item 8 may be accounting for the bulk of change noted on this factor, although change in the remaining items approached significance. Change in these items suggests that students actually saw themselves as more biased following the workshop, suggesting an increase in self-awareness. In addition, as shown on item 6, after the workshop, students felt they had more techniques to help treat patients from diverse backgrounds. On this item, the average rating of 3.26 (SD=0.86) suggests further training would be beneficial.

In terms of how the program was received by participants, the mean scores for how valuable, appropriate and effective the workshop was rated are presented in Table 5. Most (55.3%) agreed or strongly agreed that the program was valuable, and 17.1% disagreed or strongly disagreed. The vast majority—70.3%—agreed or strongly agreed that the workshop was appropriate, and only 6% disagreed or strongly disagreed with this rating. Finally, 66.6% agreed or strongly agreed that the program was effective, whereas only 9% disagreed. Interestingly, when the sample was divided into those that rated the workshop in the lower two categories versus those that rated the course in the highest two categories, no differences were noted on the CABS.

DISCUSSION

Cultural diversity in the United States is rapidly increasing, so it is important that healthcare professionals be trained to deliver culturally appropriate, quality care to all of their patients. The IOM, AAFP, AAMC and

ACGME have stressed the importance of formal training to increase cultural competency. Moreover, the LCME requires such training as a condition of medical school accreditation. This study demonstrates that even a brief intervention can be effective. While overall cultural attitudes were positively affected, a particularly interesting finding was that the items capturing cultural beliefs regarding medical treatment changed significantly. This indicates that participants became more culturally aware and thus able to recognize the role of culture in medical care. Effect sizes ranged from 0.22–0.48 (i.e., 22–48% of the pooled standard deviations), indicating that students’ changes in attitudes and beliefs were educationally meaningful.

Moreover, most viewed the CPW as valuable, appropriate and effective, perhaps indicating recognition of a need for similar training experiences, even if students do not see cross-cultural training as important as other areas of medical care. Nevertheless, regardless of how students rated the workshop, there was a significant change in attitudes and beliefs, further suggesting that training is effective. This is important, given the challenge of addressing cultural issues within the context of medicine, which has been described as a “culture of no culture.”²⁴ Learning about cultural issues as opposed to “real medicine” as well as examination of one’s biases is often met with a great deal of resistance, especially by students who see themselves as unbiased, at least initially.

While data from this workshop indicate its effectiveness, the most significant issue remains—that is, does cultural competency training have an impact on health outcomes? Does training help to reduce healthcare disparities? While there is considerable evidence that such

Table 3. Variance explained by the three-factor model for the CABS-A

Initial Eigenvalues						
	Total	Percent of Variance	Cumulative Percent	Alpha Internal Consistency	Smallest Alpha if Item Deleted	
Factor 1	2.50	22.76	22.76	0.61	0.44	CABS1
Factor 2	1.71	15.62	38.38	0.56	0.23	CABS8
Factor 3	1.46	13.33	51.72	0.59	0.35	CABS3
	Factor 1	Factor 2	Factor 3			
CABS1	0.71	0.08	-0.23			
CABS2	-0.17	-0.56	0.27			
CABS3	-0.07	-0.29	0.68			
CABS4	-0.09	-0.03	0.69			
CABS5	0.71	0.12	-0.19			
CABS6	0.03	0.03	0.70			
CABS7	0.40	0.53	0.28			
CABS8	-0.00	0.74	-0.09			
CABS9	-0.13	0.80	-0.02			
CABS10	0.53	0.00	-0.00			
CABS11	0.66	-0.08	0.21			

programs are effective in producing the desired educational outcomes, there is less evidence suggesting that doing so translates into better medical care. In fact, one study found evidence that cultural sensitivity training made little difference in how students performed in their clinical rotations.²⁵ Such a lack of durability could prove problematic if cultural attitudes do affect treatment delivery. It is critical to note, however, that learning in medicine (like all forms of learning) requires repetition and reinforcement to be truly effective. To this end, it will be important to provide *enough* of the *right types* of cultural competency training for students in order to have a significant impact on their healthcare behaviors. Cultural issues impacting medical care should be integrated into several courses across the curriculum and reinforced during clinical training experiences.

This raises a related issue, which is that teaching and reinforcing cultural competence among medical students necessitates a certain level of cultural competence among medical school faculty and preceptors, who must also be able to evaluate students and residents. Faculty, as well as students, may need multiple opportunities to learn attitudes, knowledge and skills comprising cultural competence. In sum, future studies should investigate which educational methods and experiences are most effective in regard to changes in behavior that translate into culturally competent clinical practice. In addition, issues related to strategic planning with respect to where, when and how often these educational experiences are placed within the curriculum need to be investigated.

This study also suggests the need to assess the real-world application of attitudes, knowledge and skills. Perhaps through utilization of test patients from a variety of ethnic backgrounds, the long-term effectiveness

of training programs can be investigated. For example, a fourth-year objective structured clinical examination (OSCE) could assess the retention of learning in medical school and could be repeated in residency training. Another possibility is to create a didactic role play at a follow-up assessment wherein trained confederates could evaluate students' interactions in preplanned patient-physician scenarios.

There were several limitations to this study, one of which was an inability to account for variability in students' demographic characteristics or their prior experiences related to cultural competency. Privacy concerns did not allow for direct linkage of results and demographic characteristics. In addition, the study spanned two academic years, although the student groups were demographically similar. Students also had some prior training with a cultural awareness exercise ("BaFa BaFa") their first day of medical school and discussions of racism and sexism in a first-year "Human Context in Health Care" course.

CONCLUSION

This novel program was effective at enhancing students' awareness, attitudes and beliefs, particularly those

Table 5. Workshop evaluation ratings

Postworkshop Ratings	
	Mean (SD)
Valuable	3.66 (1.00)
Appropriate	3.97 (0.87)
Effective	3.87 (0.94)

Ratings made on a 1 to 5 scale, anchored by "strongly disagree" and "strongly agree".

Table 4. Variance explained by the three-factor model for the CABS-B

Initial Eigenvalues						
	Total	Percent of Variance	Cumulative Percent	Alpha Internal Consistency	Smallest Alpha if Item Deleted	
Factor 1	2.42	22.04	22.04	0.64	0.46	CABS5
Factor 2	2.09	19.05	41.09	0.55	0.23	CABS8
Factor 3	1.43	13.03	54.13	0.56	0.40	CABS4
	Factor 1		Factor 2		Factor 3	
CABS1	0.74		0.07		-0.18	
CABS2	-0.30		-0.42		0.43	
CABS3	-0.04		-0.16		0.74	
CABS4	-0.01		-0.24		0.65	
CABS5	0.83		0.02		-0.10	
CABS6	0.22		0.14		0.64	
CABS7	0.32		0.40		0.39	
CABS8	0.05		0.81		-0.05	
CABS9	-0.09		0.81		-0.06	
CABS10	0.47		0.09		0.31	
CABS11	0.64		-0.06		0.14	

regarding the importance of culture in medical treatment. While effective in achieving its goals, our experience highlights that there is much work yet to be done, including examination of the durability of such programs and the impact of cultural competency education and training on medical practice and healthcare disparities.

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