The Medical Mission and Modern Cultural Competency Training

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BACKGROUND: Culture has increasingly appreciated clinical consequences on the patient-physician relationship, and governing bodies of medical education are widely expanding educational programs to train providers in culturally competent care. A recent study demonstrated the value of an international surgical mission in modern surgical training, while fulfilling the mandate of educational growth through six core competencies. This report further examines the impact of international volunteerism on surgical residents, and demonstrates that such experiences are particularly suited to education in cultural competency.

METHODS: Twenty-one resident physicians who participated in the inaugural Operation Smile Regan Fellowship were surveyed one year after their experiences.

RESULTS: One hundred percent strongly agreed that participation in an international surgical mission was a quality educational experience and 94.7% deemed the experience a valuable part of their residency training. In addition to education in each of the ACGME core competencies, results demonstrate valuable training in cultural competence.

CONCLUSIONS: A properly structured and proctored experience for surgical residents in international volunteerism is an effective instruction tool in the modern competency-based residency curriculum. These endeavors provide a unique understanding of the global burden of surgical disease, a deeper appreciation for global public health issues, and increased cultural sensitivity. A surgical mission experience should be widely available to surgery residents. (J Am Coll Surg 2011;212: 124–129. © 2010 by the American College of Surgeons)

Culture has important clinical consequences in the patient–physician relationship. The population of the United States is becoming increasingly diverse, and greater appreciation exists for the impact of culture on health care and health disparities.1,2 Failure to understand and manage sociocultural differences can have considerable health effects.3 The Institute of Medicine report, Unequal Treatment, demonstrated that US racial and ethnic minorities are less likely to receive even routine medical procedures and experience a lower quality of health services.4 This ignited a surge in activity by the governing bodies of medical education, and wide expansion of education programs aimed at training physicians to provide high-quality, culturally competent care. The goals are better physician–patient communication, enhanced collaboration and adherence, and improved clinical outcomes.5,6 Surgical trainees have participated in surgical missions for decades, and are now seeking international health experiences in record numbers.7 A recent study showed that participation in an international surgical mission improved the education of modern surgical trainees and fulfilled the ACGME and Residency Review Committee (RRC) mandate of educational growth through 6 core competencies.8 In this article, we offer additional insights into the effects of resident participation in medical missions and demonstrate that such experiences in culturally distinct and resource-challenged settings are particularly suited to education in cultural competency. We hypothesized that properly structured and proctored experience for surgical residents in international surgical volunteerism provides valuable instruction and education in cultural competency.

METHODS

Operation Smile’s 25th anniversary World Journey of Smiles took place November 7–16, 2007, and involved simultaneous medical missions to 40 sites in 25 countries worldwide.9 As part of this initiative, resident physicians in plastic and reconstructive surgery participated...
in the inaugural Regan Fellowship, which consisted of 3 phases, ie, a preparatory meeting, a surgical mission, and a follow-up meeting. The preparatory meeting in Norfolk, Virginia provided didactic instruction and hands-on exposure to the headquarters of a major humanitarian organization. The fellows received instruction on the multidisciplinary care of patients with cleft lip and cleft palate, information on planning and funding of international surgical missions, and insight into the provision of medical services in different economic and cultural settings. The fellows were then simultaneously dispersed to different sites throughout the world, as members of multidisciplinary cleft care teams. Each mission site replicated the typical Operation Smile paradigm (Table 1), and under assigned mentorship of attending surgeons, residents participated in all aspects of the surgical missions. Presentations and discussions at a follow-up meeting in Los Angeles, California provided the opportunity for practice-based learning and improvement.

In September 2008, one year after the mission experience, all Regan fellows with available contact information (n = 21) were emailed a survey. Reminder emails were sent in October and December 2008. There were no enticements or financial incentives. Confidentially of responses was maintained. The questionnaire consisted of 36 items on a 5-level Likert scale (1: strongly disagree to 5: strongly agree).

### RESULTS

Nineteen surveys were returned for an overall response rate of 90.5%. Responses 1 year after the surgical missions indicated these were profound experiences. One hundred percent responded that participation in an international surgical mission had an overall positive impact on their lives and 94.7% reported that they had achieved marked personal growth. One hundred percent strongly agreed that the Regan Fellowship was a quality educational experience, 94.7% deemed the experience a valuable part of their residency training, and 94.7% replied that an international surgical mission experience should be available to plastic surgery residents.

Results demonstrate considerable education in each of the ACGME core competencies, and valuable training in global health and cultural competence. When evaluating the question set for instruction and training in cultural competency, the following data were elucidated (Table 2).

### DISCUSSION

#### Cross-cultural education

The 2000 US Census confirmed that our nation’s population has become more diverse than ever before and greater appreciation exists for the impact of culture on health care and health disparities. Ethnic minorities now constitute about 30% of the population, and demographic trends show that they will become the majority by the year 2050. Health-seeking behaviors are affected by cultural motives, and some patients might delay seeking care because of perceived cultural insensitivity and concerns that they will receive a lower quality of care. Failure to understand and manage sociocultural differences can have substantial health consequences.

Cultural competency is defined as recognition of and appropriate response to key cultural features that affect clinical care. It involves obtaining the academic, interpersonal, and clinical skills necessary to increase understanding of differences and similarities within, among, and between groups. Developing cultural competence results in an ability to understand, communicate with, and effectively interact with people across cultures. Culture is influenced by many factors, including ethnicity and nationality as well as political, psychological, and biological influences. Training in cultural competence has risen to the forefront of medical education, and cultural competence programs have proliferated in US medical schools and residency programs.

The Institute of Medicine report, Unequal Treatment, highlights a substantial body of research that demonstrates considerable variation in the rates of medical procedures by race, even when insurance status, income, age, and severity

<table>
<thead>
<tr>
<th>Day</th>
<th>Event</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday</td>
<td>Site arrival</td>
<td>Check-in, hospital tour, meetings</td>
</tr>
<tr>
<td>Thursday</td>
<td>Screening</td>
<td>Clinical exams, surgical planning</td>
</tr>
<tr>
<td>Saturday</td>
<td>Scheduling</td>
<td>Surgical schedule, or preparation</td>
</tr>
<tr>
<td>Sunday</td>
<td>Personal and team activities</td>
<td>Optional activities, meetings</td>
</tr>
<tr>
<td>Monday_Friday</td>
<td>Surgery</td>
<td>Operations, postoperative care</td>
</tr>
<tr>
<td>Saturday</td>
<td>Departure</td>
<td>Departure</td>
</tr>
<tr>
<td>Sunday_Wednesday</td>
<td>Postoperative care</td>
<td>Postoperative clinics (team subset)</td>
</tr>
</tbody>
</table>
of conditions are comparable. This research indicates that US racial and ethnic minorities are less likely to receive even routine medical procedures and experience a lower quality of health services. With these findings, the Institute of Medicine recommended that the health care system pursue activities that seek to reduce cultural and communication barriers in health care, and called for the integration of cross-cultural education into the training of all future health professionals.

Academic medicine has responded with a steady increase in efforts to train physicians to provide high-quality, culturally competent care. The American Association of Medical Colleges considers skills in cultural competence to be essential for the provision of quality health care to a diverse patient population, and the Liaison Committee for Medical Education has emphasized the need for training in cultural competence in medical schools. The American Medical Association has stated that to be culturally competent, physicians must be able to provide patient-centered care by adjusting their attitudes and behaviors to the needs and desires of different patients, including accounting for the impact of emotional, cultural, social, and psychological issues on the main biomedical ailment. The ACGME has gone a step further by inserting the requirement that residents must demonstrate cultural competence by showing sensitivity and valuing diversity of patients and colleagues. This in turn requires complex integration of knowledge of the effects of culture on others’ beliefs and behavior, attitudes of the patient and physician, and communication skills. In addition, the private sector has taken a keen interest in cultural competence and has emphasized that providing culturally competent care improves patient satisfaction.

A recent review concluded that cultural competence education improves the knowledge, attitudes, and skills of health professionals, as well as patient satisfaction. However, limited evidence exists demonstrating that the current models of education lend themselves to positive outcomes and implementation in clinical practice. There is currently no consensus on how cultural competence should be taught in residency training and, therefore, considerable variability exists in the design and implementation of cross-cultural education. Different components of cultural competence are often taught

Table 2. Regan Fellowship Survey Results: Instruction Cultural Competency

<table>
<thead>
<tr>
<th>Instruction in cultural competence</th>
<th>% Agree</th>
<th>% Neutral</th>
<th>% Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>You have an increased appreciation for the impact of a person’s culture on their health</td>
<td>94.4</td>
<td>5.6</td>
<td>—</td>
</tr>
<tr>
<td>The medical mission allowed you to work with diverse interprofessional teams to enhance patient safety</td>
<td>94.7</td>
<td>5.3</td>
<td>—</td>
</tr>
<tr>
<td>The mission was effective to practice communicating effectively with physicians, health professionals,</td>
<td>100</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Numerous clinical faculty from diverse backgrounds facilitated exchange of ideas and intensive resident education</td>
<td>100</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>The mission provided an opportunity to learn how to more effectively communicate with patients from different socioeconomic and cultural backgrounds</td>
<td>94.7</td>
<td>5.3</td>
<td>—</td>
</tr>
<tr>
<td>The mission practices reflect a model of patient care that emphasizes compassion, integrity, and respect for others</td>
<td>100</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>The surgical mission facilitated exchange of ideas and intensive resident education</td>
<td>100</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>It was beneficial to work within a health care system in an underdeveloped nation with severely limited resources</td>
<td>100</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>The mission provided experience in effective resource allocation to benefit the most possible patients</td>
<td>94.7</td>
<td>5.3</td>
<td>—</td>
</tr>
<tr>
<td>The surgical mission emphasized accountability to patients by encompassing confidentiality, respect, and autonomy</td>
<td>89.5</td>
<td>10.5</td>
<td>—</td>
</tr>
<tr>
<td>The mission was effective to practice communicating effectively with physicians, health professionals, and staff from different socioeconomic and cultural backgrounds</td>
<td>89.5</td>
<td>10.5</td>
<td>—</td>
</tr>
<tr>
<td>The mission provided experience in effective resource allocation to benefit the most possible patients</td>
<td>100</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>The Norfolk meeting improved your understanding of the funding and planning of international medical missions, and increased your understanding of the logistics involved with nonprofit organizations and global health efforts</td>
<td>100</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>This experience increased your self confidence</td>
<td>84.2</td>
<td>15.8</td>
<td>—</td>
</tr>
<tr>
<td>This experience invigorated you as a doctor</td>
<td>89.5</td>
<td>5.2</td>
<td>5.3</td>
</tr>
<tr>
<td>This experience has increased your personal sense of social responsibility</td>
<td>84.2</td>
<td>15.8</td>
<td>—</td>
</tr>
<tr>
<td>This experience has increased the likelihood that you will participate in volunteerism to underserved populations</td>
<td>94.7</td>
<td>5.3</td>
<td>—</td>
</tr>
</tbody>
</table>
through classroom lectures, workshops, electives, standardized patient exercises, clinical clerkships, language training, immersion programs, and other interactive exercises. Most training occurs during the first or second years of medical school, commonly in a case-based or didactic format. Less-structured training is provided in the residency process, with little attention given to cross-cultural issues during a time when young doctors have the opportunity to experience, practice, and internalize multicultural communication skills.

**International volunteerism and cultural competency**

Earlier evidence shows that students and residents who have completed an international clinical rotation report increased skills and confidence, enhanced sensitivity to cost issues, less reliance on technology, and greater appreciation for cross-cultural communication. Similarly, they embrace attitudes and desires to practice medicine among underserved and multicultural populations. Global health institutions are becoming increasingly prevalent at the nation’s top universities and academic health centers, providing guidance and financial support for global health initiatives and education. There has also been a simultaneous surge in demand by residents for training and experience in global health, and residency program applicants place increasing emphasis on these opportunities. A recent national survey of American College of Surgeons residents found that 92% of the 724 respondents were interested in an international elective and 82% were interested in a medical mission overseas as part of their career.

This report is the first of its kind to demonstrate that participation in a medical mission overseas provides positive training in cultural competency. Evaluation of the Operation Smile Regan Fellowship demonstrates that participation in overseas volunteerism is uniquely suited to educate residents in cultural competence. Such experiences provide training in culturally sensitive care that focuses on fostering attitudes, knowledge, and skills to negotiate complex transcultural encounters. Service overseas in a structured and proctored setting provides an exceptional opportunity to obtain hands-on experience with the provision of health care in a culturally distinct and resource-challenged setting. The majority of respondents found unique value in working with culturally diverse interprofessional teams, and 100% replied that numerous clinical faculty from diverse backgrounds facilitated exchange of ideas and intensive resident education. Most (94.7%) responded that the mission provided valuable training to effectively communicate with patients, health professionals, and staff from different socioeconomic and cultural backgrounds and 84.2% of participants gained improved confidence in dealing with other cultures.

These experiences provide young physicians with the tools to provide superior, culturally sensitive treatment throughout their careers, and improve patient care and satisfaction among an increasingly diverse population. When compared with traditional models, such as didactic lectures, role playing, and mock patient encounters, these hands-on, real-life experiences will better fulfill the goal of creating physicians that are capable of delivering the highest quality care to every patient regardless of race, ethnicity, culture, or language proficiency. Most (94.4%) participants in the Regan Fellowship stated that the mission experience improved their perspective on worldwide disparities in health care access and gave them an increased appreciation for the impact of a person’s culture on their health. There was widespread improvement in self-confidence and nearly all participants reported feeling invigorated as a doctor. Many (84.2%) indicated that this experience has increased their personal sense of social responsibility and 95% reported an increased likelihood that they will participate in future volunteerism to underserved populations.

With the proper accreditation and funding, medical volunteerism has the potential to become widely incorporated into residency training programs as a superior model for training in cultural competency. It seems logical that residents will be better trained to provide care to an increasingly heterogeneous patient population through experiences in foreign countries where they learn to practice in their chosen field in an entirely new and different culture and health care system. Exposure to service as a resident trainee can have critical influence on a physician’s future, and makes it increasingly likely for that person to incorporate international volunteerism as part of their career. A renewed sense of personal social responsibility can result, as surgical volunteerism helps to remind trainees of their altruistic ideals and the excommittal of fulfilling them through service to others.

**Study limitations**

A weakness of this study is our dependence on perceived benefits and changes in attitudes. It has proven difficult to objectively evaluate a given component of residency training in order to isolate its individual benefit to a given resident. This is especially true for evaluation of outcomes measures in relation to training in the ACGME core competencies and in cultural competency. Selection bias can also exist. We believe that participants in these endeavors will always be a self-selected group and this selection bias will exist in any study of the impact of international training. The only way to eliminate this bias would be to assign...
an international rotation randomly to residents, which is not reasonable. Rather than arguing that an international mission experience creates changes independent of residents’ initial attitudes, we believe that the rotation affirms and reinforces these values.

Additional objective outcome measures of such training would be very worthwhile, and we continue to collect data from ongoing participants. We plan to reevaluate our current and ever-increasing cohort of program participants at future time intervals, and encourage other programs to do the same. In this way we will be able investigate long-term implications of these experiences (eg, practice patterns, provision of care to vulnerable patients, diversity of patient population, involvement with service organizations, participation in educational endeavors) when compared with control cohorts.

CONCLUSIONS
The quest to improve global health is closely aligned with the professional values and visceral instincts of most physicians. Many young doctors enter medicine with a passionate interest in global health, and it is the challenge of modern surgical training programs to nurture this commitment and encourage its expression. We offer the Operation Smile Regan Fellowship as a successful model for volunteer service overseas, and have demonstrated that international volunteerism is an effective instruction tool in the modern competency-based residency curriculum. In addition, these experiences provide unique and valuable training in cultural competency as mandated by the ACGME. Young physicians are calling for more international health opportunities during their residency training and, based on our findings, they should be generously supported. Through partnerships among governmental agencies, private health service organizations, distinguished universities, and residency training centers around the world, there is tremendous potential for development and widespread incorporation of this type of experience into surgical residency training programs. Medical diplomacy will flourish, as international and governmental support of these programs will demonstrate dedication to the global burden of surgical disease. The result will be an improvement in the knowledge base, clinical skills, cultural competency, and humanitarian abilities of our nation’s future doctors and surgeons, who in turn will be more focused on improving health in the United States and around the globe.

Author Contributions
Study conception and design: Campbell, Sullivan, Magee  
Acquisition of data: Campbell  
Analysis and interpretation of data: Campbell, Sullivan  
Drafting of manuscript: Campbell, Sherman  
Critical revision: Campbell, Sullivan, Sherman, Magee

REFERENCES


