Intercultural Sensitivity of Rural Family Medicine Residents

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ABSTRACT

Recent literature emphasizes the importance of cultural competency and intercultural sensitivity for those in medical training. This study uses the Intercultural Development Inventory (IDI) to examine the intercultural sensitivity of Family Medicine residents specializing in rural healthcare. Results indicate that, as a whole, residents tend to significantly overestimate their intercultural sensitivity and adhere to a viewpoint that emphasizes cultural commonality and discounted cultural difference. However, residents who completed the residency program's cultural competency curriculum showed a pattern of increased intercultural sensitivity and a more realistic assessment of their sensitivity to cultural difference.

INTRODUCTION

For a number of reasons, it is essential that students in medical training be oriented to the cultures of their patients (Jensen & Royeen, 2002). Culture is defined as a "dynamic and perceptual 'lens' through which individuals view and interpret the world" (Jensen & Royeen, 2002, p. 124). It includes the socially constructed meanings, values, and beliefs of a given group of people. In order for medical professionals to work effectively with patients who are culturally different from themselves, cultural competence must be achieved. Cultural competence, as described by Sue and Sue (2002), requires that an individual have awareness of cultural difference, knowledge of particular cultures, and skills to work with those who are culturally different. Further, the competence to work with diverse patient populations moves beyond simple awareness that cultural differences exist and into an area where medical professionals are able to effectively diagnose and treat multicultural patients (Ochoa, Evans, & Kaiser, 2003). For instance, medical professionals should be knowledgeable about a patient's views of disease causation, be able to conduct a cross-cultural interview or exam, and be able to treat a patient within his or her own cultural norms (Juckett, 2005).

Rural medical patients are one such group that has come to be recognized as a specific culture. Rural patients experience a number of barriers to healthcare that many urban patients do not. Limited financial resources, inadequate means of transportation, long

distances to healthcare providers, and a low number of available healthcare pofessionals in rural areas are only a few of the obstacles that rural patients face when seeking medical treatment (Merwin, Snyder, & Katz, 2006). Furthermore, rural patients often place a cultural value on self-sufficiency and independence that leads to their exhibiting fewer help seeking behaviors for health problems (Mewin et al., 2006).

Work with these patients becomes further complicated when they are members of a racial or ethnic minority. Patients who fit this description are becoming increasingly common. For example, many states that have not been noted for their cultural diversity in the past, such as Midwestern states, are rapidly increasing their numbers of racially and ethnically diverse residents (The Office of Minority Health, 2001). Furthermore, since racial/ethnic minorities have historically been victims of institutional racism, this group continues to experience disparities from the majority population in the areas of socioeconomic status, education, and access to a number of resources, including healthcare (Probst, Moore, Glover, & Samuels, 2004). Thus, the interplay of racial/ethnic factors and geographic location takes a toll on many rural medical patients, and leads to the need for special considerations for members of this population.

Given the importance of cultural competence in medical practice, many residency programs and medical schools have begun to incorporate cultural competency curricula into their training agendas. The integration of such curricula into programs is well-liked by HMOs because culturally competent medicine improves the quality of patient care, increases patient retention, and contains costs (Ochoa et al., 2003). Conversely, failure of training programs to address cultural issues can lead to patient misdiagnosis, decreased cooperation and adherence with medical treatment, inappropriate use of healthcare systems, and even patient alienation and mistrust of physicians (Davis & Voegtle, 1994). Thus, cultural competency curricula have been widely supported by a number of governing medical bodies for all physicians-in-training (Masters, 1998).

According to Shapiro, Lie, Gutierrez, and Zhuang (2006), cultural competency curriculum can take two forms—formal and informal. In formal training, residents and students often have modules to complete, usually comprised of reading assignments with specific literature coupled with lectures on various cultural topics. In contrast, informal training includes learning about culturally effective practice from colleagues and faculty physicians, and in real-life clinical situations. Similarly, Carrillo, Green, and Betancourt (1999) contrast the use of specific tactics to achieve competence with patients (i.e., the use of interpreters and bilingual providers) with the use of a more general emphasis on sensitivity to cultural issues. Above all, Jensen and Royeen (2002) emphasize an intense focus on trainees' development of self-awareness surrounding cultural issues as the key to an effective cultural competency curriculum.

METHOD

Participants

Participants were 20 Union Hospital Family Medicine Center (UHFMC) residents from four different program years (PGYs). Residents from the UHFMC residency train in collaboration with the Richard G. Lugar Center for Rural Health, a center dedicated to preparing family medicine residents for work in rural underserved areas. All residents are required to participate in rural rotations throughout their three years of residency and may opt to participate in a more extensive rural training track prior to graduation.
Overall, participants were nine males and 11 females, ranging in age from 26 to 45 with a mean age of 32.40 years. Residents were from a number of racial and ethnic backgrounds (see Table 1). Of these participants, four (two males, two females, all Caucasian American, mean age of 32.78) completed a pre-test and post-test measure, while 16 residents (seven males, nine females, mean age 30.86 years) completed only a pre-test. Those who completed a pre-test and post-test graduated in July 2006, while the other 16 residents are members of the three current PGYs. These residents completed their pre-tests at the beginning of the 2006 residency year.

Table 1
Racial and Ethnic Self-Identifications of Residents

African	2
Asia Pacific	7
Eastern European	1
European American	7
Middle Eastern	2
South American	1

Materials

The Intercultural Development Inventory (IDI) is a measure of intercultural competence comprised of 50 true or false statements. It is a reliable and valid measure of this construct and is not systematically affected by gender, social status, educational level, or prior international residency (Hammer, Bennett, & Wiseman, 2003). The IDI is based on Bennett's (1986, 1993) Developmental Model of Intercultural Sensitivity (DMIS) that posits that as people's experiences and understandings of cultural difference become more complex, they tend to become increasingly culturally competent. Thus, DMIS concepts are measured by corresponding IDI scales that range from ethnocentric on one end of the developmental continuum, to ethnorelative on the other end (Hammer et al., 2003). More specifically, ethnocentric scales include Denial, Defense, and Minimization, while the ethnorelative scales are comprised of Acceptance, Adaptation, and Integration (see Table 2 for a description of DMIS scales and Table 3 to see how DMIS and IDI scales correspond).

Table 2
Descriptions of DMIS Levels of Development (Hammer et al., 2003)

Name	Characteristics
Denial	Rejection of differences; isolation and separation from different cultures and from those who appear culturally different
Defense	Denigration of cultural differences, feelings of superiority over those who are different, and/or feeling that another culture is better than one's own
Minimization	Minimization of cultural differences, belief in physical and transcendent universalism
Acceptance	Respect for behavioral and value differences
Adaptation	Cognitive and behavioral adaptation across cultures
Integration	Contexual evaluation and constructive marginality

Table 3
Corresponding DMIS and IDI Scales (Hammer et al., 2003)

DMIS Scale Name	Corresponding IDI Scale(s)
Denial, Defense, & Reversal	Denial/Defense (DD) or Reversal (R)
Defense, Reversal, Minimization, & Acceptance	Minimization (M)
Acceptance & Adaptation	Acceptance/Adaptation (AA)
Integration	Encapsulated Marginality (EM)

Procedures

As previously stated, 16 residents from the current PGYs took pre-test IDIs, while only four residents, graduates of the July 2006 residency class, took both pre-test and post-test IDIs. These four residents completed pre-test IDIs at the beginning of their first year in residence, and then completed a post-test IDI at the end of that year. During the interim, all residents participated in cultural competency curriculum that included four

cultural awareness and sensitivity trainings, a group interpretation of pre-test IDI results, and discussion groups on cultural competence in medical practice.

Residents who have only completed pre-test IDIs will complete post-test IDIs at the conclusion of their third year in the residency program. At that time, these residents will have received a more developed version of UHFMC's cultural competency curriculum that includes a group IDI interpretation, regular discussions on cultural competency in medicine, and exposure to standardized reading materials based on residency rotations. Reading modules include five articles and a post-test, and module topics include cultural competency issues in intensive care, obstetrics, emergency medicine, family medicine, inpatient medicine, cardiology, rural health, and pediatrics. Their pre-test scores are given here to illustrate typical IDI scores within incoming medical residency classes at UHFMC.

RESULTS

Pre- and Post-test IDI Results

***Profile interpretation*.**

An examination of profiles of residents who took both pre-test and post-test IDIs showed that, overall, these residents tend to approach culture from a viewpoint that emphasizes cultural commonality and discounts cultural difference. They tend to see other people as basically similar to themselves and may search for cultural commonalities when differences are present. However, the residents are aware of and interested in cultural difference and do not see one culture as superior to any other.

Between the pre-test and post-test administrations, the four graduating residents showed an increase in their knowledge about cultural differences as well as an acceptance that the world is home to a number of different cultures. However, at the time of post-test, the residents were continuing to develop their abilities to consistently apply their awareness of cultural differences to others as well as their abilities to shift their perspective or behavior in order to better understand differences.

Members of this residency class tended to see themselves as aware and accepting of cultural differences. However, the residents also tended to greatly overestimate their cultural competence. In other words, there was a substantial gap between residents' perceived cultural sensitivity and actual sensitivity to cultural difference.
Statistical analyses. Given that only four residents completed both pre-test and post-test IDI measures, there is no guarantee that the assumptions necessary to ensure accurate statistical analyses have been met. Thus, these results should be interpreted cautiously and should be considered only as preliminary findings.

Table 4 shows pre-test and post-test means, standard deviations, and *t*-test values for the four residents who completed both pre-test and post-test IDIs. An examination of the mean scores at pre-test and post-test do indicate a shift toward increased cultural

sensitivity at post-test. The increase in both perceived sensitivity (the residents' own views regarding their cultural sensitivity) and developmental (actual) sensitivity approach statistical significance (*p* = .077 and *p* = .078, respectively), supporting the idea that residents' overall sensitivity increased between pre-test and post-test. The gap between residents' perceived and actual sensitivity also decreased, indicating that, over time, residents gained a more realistic assessment of their actual sensitivity. Despite this, residents continued to overestimate their cultural sensitivity at post-test.

Table 4
Paired Samples t-test Results

IDI Subscale Scores								
	Pre-test		Post-test		Paired Differences		Pre and Post Test	
Scale	**M**	**SD**	**M**	**SD**	**M**	**SD**	**t(3)**	***p***
Perceived Sensitivity	121.09	3.87	125.36	4.09	-4.27	3.23	-2.65	0.077
Developmental Sensitivity	93.08	13.09	102.01	13.32	-8.93	6.79	-2.63	0.078

Pre-test Only IDI Results

Pre-test IDI results of all residents are quite similar to those of the group that completed both pre-test and post-test IDIs. Means for the current PGYs are given by group in Table 5. Although there is not enough data to warrant statistical testing on these means, a cursory examination reveals trends that suggest residents in all PGY groups estimated their cultural sensitivity to be greater than it actually is.

Table 5
Mean IDI Scores for Pre-test Only PGYs

	PGY 1	PGY 2	PGY 3
Perceived Sensitivity	**117.14**	**117.42**	**117.97**
Developmental Sensitivity	**85.82**	**86.99**	**84.17**

DISCUSSION

The findings of the current study are congruent with previous literature regarding the need for increased overall cultural sensitivity in the medical profession and specific cultural competency training for those training to be physicians (Geiger, 2001; Jensen & Royeen, 2002; Ochoa et al., 2003). The current researchers found that, upon completing a measure of intercultural sensitivity, the medical residents who participated in this study tended to overemphasize cultural similarity and search for cultural commonalities when presented with those who were different from them. Given this overall approach to cultural difference, it is likely that the residents apply these attitudes to their own patients, a practice that can lead to less effective healthcare (Davis & Voegtle, 1994; Ochoa et al., 2003). To complicate matters further, residents in this particular program work extensively with patients from rural backgrounds, a population that requires special consideration and cultural competency from healthcare providers (Merwin et al., 2006; Probst et al., 2004).

In addition to this, residents consistently overestimated their cultural sensitivity, indicating they believed themselves to be significantly more sensitive to cultural difference than they actually are. This was true of residents across racial and ethnic backgrounds—although the PGYs themselves are racially and ethnically diverse, levels of cultural sensitivity and overestimates of sensitivity appeared similar across groups. Thus, residents from countries other than the United States appeared to be just as likely to overemphasize cultural similarities and discount cultural difference.

Finally, it does appear that cultural sensitivity can be increased and the gap between residents' perceived and actual sensitivity can be decreased over time with intervention. Although the pre-test/post-test IDI group had only one year of interventions (e.g., group discussions, group IDI interpretations, trainings), they showed increased cultural sensitivity and a more realistic assessment of their level of sensitivity. This is promising in that medical residents receiving three full years of cultural competency trainings and interventions, both formal and informal, may increase cultural sensitivity in a truly significant way.

Limitations

There are several limitations of this study that warrant attention. First, PGYs that completed only pre-tests took their IDIs at different times in their residency training and had different levels of exposure to the cultural competency curriculum, which was still in its initial stages of development. In other words, all PGYs took IDI pre-tests at the same time although they were in different years of their training. However, although there is certainly the possibility that this could have had some effect on IDI scores, both perceived and developmental sensitivity scores were consistent across PGY cohorts.

In addition, there are also statistical limitations to this study. Only four members of one PGY took both pre-test and post-test IDIs; thus, the assumptions for the statistical tests

performed on these data were not met. Statistical analyses should, therefore, be interpreted with caution and be considered only preliminary findings.

Future Directions

The results of this study confirm the conclusions discussed in previous literature that there is a definite need for cultural competency curricula in medical training. Thus, the integration of such training should be a goal for both residency programs and medical schools. Furthermore, future research is needed regarding the effectiveness of different types of training (i.e., formal vs. informal) as well as the length of these training interventions.

Follow up on the current study could also be helpful. Examinations of group means could uncover a pattern of increased sensitivity and awareness in current PGYs similar to the graduated PGY discussed in this article. The effects of more exposure to the residency's current intact cultural competency curriculum should also be examined.

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