POTENTIAL PATTERN

Interdisciplinary Health Science Education to Promote Cultural Competence

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The 2000 United States Census confirmed that the United States has become increasingly racially, ethnically and culturally diverse, with implications for healthcare. \(^1\)\(^-\)\(^4\) Increasing ethnic and cultural diversity, coupled with recognition of health status disparities among sub-populations (racial, ethnic, gender), has spurred recognition that cultural competence is “an essential ingredient for quality, access and the elimination of disparities” and is necessary to meet legislative and regulatory requirements, including Federal requirements for language-access services. \(^5\)\(^-\)\(^9\)

Cultural competence is a process, requiring respect for individual and family differences and, in health care, requires the ability to provide effective, quality services to culturally, ethnically, linguistically, and otherwise diverse populations, tailoring care to clients needs. \(^1\)\(^,\)\(^10\)\(^-\)\(^12\) Diverse populations encompass the full range of multicultural distinctions, including racial; religious; immigrant; gay, lesbian and transgender; individuals with disabilities; and nontraditional families. \(^10\)\(^,\)\(^13\)

Cultural competence is recognized as necessary for quality healthcare by the U.S. Department of Health and Human Services, \(^14\) including the Bureau of Primary Health Care, \(^7\) the Office of Minority Health \(^9\)\(^,\)\(^15\), and the National Committee for Quality Assurance. \(^16\) The Joint Commission on Accreditation of Healthcare Organizations recognizes an individual’s right to healthcare services that consider individual culture and language, and the relationship between culturally competent practice and healthcare “safety and quality.” \(^17\) Similarly, the American Medical Association \(^18\) and Institute of Medicine highlight the importance of “culturally
responsive medical care,” and effective cross-cultural communication to reduce health disparities.19

The American Occupational Therapy Association affirms the right of each individual to actively participate in healthcare decision-making to attain personally meaningful goals.20 Professional guidelines for culturally competent occupational therapy highlight the need to appreciate one’s own culture, biases and values; to respect diversity; and to use “culturally sensitive interventions.”21 Cultural competency requires that practitioners are aware of their personal values and biases, appreciate the ways in which culture can impact attitudes, behavior and lifestyle, and have communication skills to support effective cross-cultural interactions.11,22-23 Implicit in “becoming culturally competent” is recognition of one’s heritage, respect for each individual’s cultural practices and beliefs, and appreciation of the risk of stereotyping groups.10,24-25

U.S. Census and healthcare data show disparities in life expectancy and the prevalence of chronic illness and disability between genders and among Blacks, Whites, Asian Americans, and Hispanics.11,26-27 The Institute of Medicine’s 2002 report Unequal Treatment found that patients of different cultural backgrounds do not consistently receive equal medical treatment and clinical procedures, and that “racial differences” are insufficient to fully explain healthcare disparities.8,28 The causes of these marked disparities in life expectancy, chronic illness, and disability are not fully understood. In addition to linguistic, transportation, and financial barriers, there are concerns that provider bias and misperceptions hinder effective communication, negatively influencing medical care quality.5,8,28-29

Fadiman’s The Spirit Catches you and You Fall Down (1997) tells the story of cultural clash and misunderstanding between an immigrant Hmong family and American healthcare and social service organizations in which the family was erroneously accused of sabotaging their
daughter’s health. Similarly, Ratliff (1999) reports a cultural clash involving a Hmong infant diagnosed with retinoblastoma, requiring removal of the eye. Both cases resulted in loss of parental custody. Miscommunication, language barriers, and lack of knowledge about Hmong religion and beliefs contributed to a law enforcement manhunt after the family abducted their child from the hospital to prevent surgery. The situation was resolved after social service personnel enlisted assistance from a local Hmong shaman who calmed fears and encouraged needed surgery.

Effective cross-cultural communication and client-centered approaches can avert unintentional personal, community and institutional conflict. One successful occupational therapy example involved collaborative treatment planning between a French-speaking Haitian woman who sustained a stroke, with resulting moderate aphasia, while visiting her American daughter. Despite medical challenges and language barriers, the patient’s goal of returning home to Haiti was achieved through a client-family-centered partnership. This partnership supported a treatment plan that focused on the patient’s specific needs and goals to maximize self-efficacy, functional self-care capabilities, and quality of life.

Community-based health care and prevention programs are more successful when they recognize culturally meaningful interventions. John, Hennessy and Denny (1999) provide an example of the Zuni Diabetes Project, an exercise and weight reduction program that addresses obesity and diabetes within Native American populations. Although successful outcomes depend upon multiple factors, health care programs for Native Americans were found to be more successful when in accord with traditional, holistic health care approaches.
This paper reports on an interdisciplinary educational intervention with goals that included increasing: cultural self-awareness; knowledge and understanding of diverse cultures, including how culture can influence health behaviors and service utilization; communication skills with diverse populations; and clinical skills for culturally competent practice. It expanded upon existing coursework to support culturally competent practice within occupational therapy and other healthcare education programs. The program was funded by a Stony Brook University grant and by the university’s multidisciplinary Long Island Geriatric Education Center and was approved by the University’s Office on Research Compliance.

This initiative was embedded within a sequence of occupational therapy, physician assistant, and physical therapy courses, was an elective for nursing, social work, and medical students, and was offered to all students and faculty within these disciplines. Part one, “Moving Toward Cultural Competency”, included a four-hour program using lecture, small-group self-exploration activities, and case studies. Part two, “Addressing Diverse Client Needs,” used a two-hour interactive community forum. In this forum panelists shared their personal perspectives and experiences with students, faculty and members of the health care community. They included individuals from the Hispanic, Black, Asian and Muslim communities, gay, lesbian, and transgender adults, parents of disabled children, physically disabled adults. Facilitated dialog between participants and forum speakers personally explored how bias, miscommunication, and cultural insensitivity affected healthcare interventions, utilization, and speakers’ attitudes and behaviors toward healthcare providers and institutions (Table 1).
Table 1. Cultural Competence Interdisciplinary Program

<table>
<thead>
<tr>
<th>Program Description</th>
<th>Learning Objectives</th>
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<tr>
<td><strong>Part 1. Moving Toward Cultural Competency</strong></td>
<td>1. To increase participants self-awareness and recognition of personal biases, attitudes, and prejudices</td>
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<td>Guest faculty Roxie Black and Shirley Wells provided a 4-hour lecture and interactive case-based program to increase knowledge and skills for culturally competent health care practice. Black and Wells used materials from their text <em>Moving Toward Cultural Competency</em> including their Cultural Competency Educational Model focusing on:</td>
<td>2. To increase knowledge of how culture can impact health beliefs, behaviors, and service utilization</td>
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<td>1. Self-exploration to build an awareness of one’s individual cultural heritage</td>
<td>3. To promote clinical communication skills</td>
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<td>2. Increasing knowledge about diverse cultures and recognition of individual and group differences and similarities</td>
<td>4. To increase knowledge of the benefits of culturally competent practice for effective health care services</td>
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<td>3. Developing strategies and skills to more effectively communicate and interact with persons from different cultures</td>
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<td>The session included skill-building small-group cased-based simulation activities. For example, one case focused developing a care plan for a 72-year old Somali woman with specific religious dietary and modesty requirements and strong cultural views concerning gender and family roles.</td>
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<td><strong>Part 2. Cultural Competence: Addressing Diverse Client Needs</strong></td>
<td>1. To increase knowledge regarding the health care concerns and needs of culturally diverse consumers.</td>
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<td>A multimedia musical and slide presentation, developed with the assistance of Stephen Larese, Stony Brook University Slide Librarian, set the tone for this 2 hour forum. The program brought together a diverse group of 10 individuals from the Long Island community and New York City metropolitan area to share their experiences as health care consumers. Panelists were asked to share a personal story and participate in a discussion on how students and clinicians can increase understanding of diverse client values and concerns to optimally address their health care needs.</td>
<td>2. To increase knowledge about the impact of client-provider communication on health care utilization and outcomes.</td>
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<td>The themes of these stories focused on concerns about respect, privacy, prejudice, ignorance, and paternalism. One story, told by a 63-year old transgender women, spoke of the emotional toll of coping with cancer treatment and insensitive, disrespectful hospital staff. Another panelist shared her experiences as a young woman with paraplegia determined to live her life, enjoy sports (i.e., scuba diving), and have a family, and her search to locate physicians who would recognize her goals and capabilities as well as her limitations.</td>
<td>3. To promote culturally competent communication skills and clinical practice.</td>
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Methodology

Participants

Program evaluation research utilized pre and post-program tests to determine if there were changes in perceived levels of cultural competency among occupational therapy students, who were required to attend both parts of this program. Twenty-six students took the pre-program test; twenty-five students completed the post-program test. Due to coding difficulties, only 15 of the post-program tests could be matched to their corresponding pre-program tests.

All participants completed The Long Island Geriatric Education Center’s 9-item program evaluation at the conclusion of part one and part two of this interdisciplinary program. Fifty-six students, faculty, and guests attended part one “Moving Toward Cultural Competency;” 81 participants attended part two “Addressing Diverse Client Needs.” Two items from this program evaluation were analyzed to assess perceived changes in knowledge level before and after attending each session.

Instruments

The primary outcome measures included, Promoting Cultural and Linguistic Competency: Self-Assessment Checklist for Personnel Providing Primary Health Care Services, designed to facilitate reflection and dialogue about cultural competency, by Georgetown University’s National Center for Cultural Competence (NCCC), and one open-ended question that asked how the program influenced attitudes, values, and communication styles.37 The checklist was selected as a recognized, standardized instrument that promotes self-examination; with the knowledge that “there was no process, nor any intent to determine the psychometric properties of the tool” and that NCCC does not consider this tool “the most appropriate for quantitative measurement of changes in self-report over time.” (W Jones, personal
communication, May 24, 2005). It was then adapted with permission to enable use by students. The Physical Environment and Resources section was deleted since it is suitable only for practicing clinicians. The entire two sections on Communication Styles and Values and Attitudes remained, and the response scale was expanded from a 3-point scale (Things I do frequently, Things I do occasionally, and Things I do rarely or never) to a 5-point scale geared to student needs, adding: Things I need to do frequently and Things I need to do occasionally. Lower scores indicate higher cultural competence self-assessment.

The Long Island Geriatric Education Center’s standardized 9-item program evaluation, using a 5-point Likert scale (1 the lowest rating; 5 the highest), was completed by participants to rate their knowledge-level of the subject before (item 1) and after (item 2) each session. The remaining seven items (not analyzed here) were about the program’s methodology rather than the program’s content (speaker quality, meeting course objectives, teaching methods, physical facilities, personal objectives’ satisfaction, recommendation, and overall program quality.)

Data Analysis

Quantitative data analysis was conducted using SPSS (Version 13.0), Microsoft Excel (2003), and the University of Colorado at Colorado Springs’ web site for calculation of Cohen’s d. Cronbach’s alpha reliability analysis was performed to determine the appropriateness of creating overall scores for the modified Promoting Cultural and Linguistic Competency: Self-Assessment Checklist for Personnel Providing Primary Health Care Services. Two scores were calculated for each person: Communications (8 questions) and Values & Attitudes (20 questions). Cronbach’s alphas were 0.63 for the Communications scale and 0.89 for the Values & Attitudes scale. These indicate a high degree of reliability for the Values & Attitudes scale.
and a lesser degree of reliability for the Communications scale. Item responses were summed to create these two separate scores.

The data included 26 pre-program and 25 post-program tests, of which 15 were paired. Collectively, these tests had 34 missing responses, 17 were in two tests. These were eliminated from the analysis (both unpaired pre-program tests). The remaining missing responses were replaced with the median (appropriate for ordinal data) response for the cohort (pre or post).

A paired-samples t-test was used to analyze differences between occupational therapy students’ paired pre-program and post-program test scores \( n = 15 \). An independent-samples t-test was used to analyze unpaired data (pre-program tests \( n = 9 \); post-program tests \( n = 10 \)). The open-ended question was analyzed qualitatively for common themes. Scores on the university program evaluation were also analyzed to assess the change, for all participants, for each of the two sessions regarding knowledge of subject matter before and after each session using paired t-tests (session one, \( N = 56 \); session two, \( N = 81 \)).

**Results**

For the OT students the paired tests \( n = 15 \), the mean pre-program Communications and Values & Attitudes scores were \( M = 15.13 \) (\( SD = 4.49 \)) and \( M = 39.33 \) (\( SD = 12.66 \)), respectively while the mean post-program Communications and Values & Attitudes scores were \( M = 14.67 \) (\( SD = 3.37 \)) and \( M = 32.53 \) (\( SD = 7.18 \)), respectively. Results of the paired-samples t-tests indicated a marginally significant improvement for occupational therapy students’ Values & Attitudes mean scores \( t(14) = 2.14, p = 0.05054 \) (two-tailed), \( d = 0.66 \) and no significant difference in the mean Communications scores \( t(14) = 0.38, p = 0.71 \) (two-tailed), \( d = 0.12 \).
For the unpaired tests, the mean pre-program \((n=9)\) Communications and Values & Attitudes scores were \(M=16.33\) (SD=2.00) and \(M=29.89\) (SD=4.40), respectively while the mean post-program \((n=10)\) Communications and Values & Attitudes scores were \(M=15.2\) (SD=6.09) and \(M=32.20\) (SD=10.94), respectively. Results of the independent-samples t-test showed no significant differences in any of the mean scores [Communications scores: \(t(11.1\) equal variances not assumed) = 0.56, \(p=0.59\) (two-tailed), \(d=0.25\) and Values & Attitudes scores: \(t(17\) equal variances assumed) = -0.59, \(p=0.56\) (two-tailed), \(d=-0.28\).

The marginally significant difference in the Values & Attitudes mean scores, found in the paired analysis but not the unpaired analysis, is probably due to the fact that the paired tests were from predominantly first-year students while the un-paired tests were predominantly second-year students. The second-year students had already been exposed to issues of cultural competence during their initial clinical experience. The mean of the Values & Attitudes scores for the pre-program paired tests is high (lower perceived competence), whereas the mean of the Values & Attitudes scores for the post-program paired tests is comparable to the means of the Values & Attitudes scores for both the pre- and post-program un-paired tests.

Program evaluation forms were completed by all participants for both parts one \((n=56)\) and two \((n=81)\) of the program. Based on the program evaluation forms, significant differences in mean perceived knowledge scores were found for both part one and part two \((ps<0.000\), two-tailed\). For part one, the pre and post mean scores were \(M=3.54\) (SD = 0.95) and \(M=4.14\) (SD = 0.72), respectively, \(t(55)=-6.69\), \(d=0.72\). For part two, the pre and post mean scores were \(M=3.68\) (SD = 0.85) and \(M=4.38\) (SD = 0.70), respectively, \(t(80)=-7.38\), \(d=0.90\).

Qualitative data, from occupational therapy students responses to an open-ended question \((n=26)\), showed that 22 students reported increased insight and understanding of other cultures.
Four students specifically indicated that the program influenced how they will communicate with diverse client populations and two students stated that the program “opened their eyes” and helped them value diversity. Specifically, one student reported that hearing directly from health care consumers was “informative, eye opening,… and made me more aware of other cultural practices”, another stated that the program increased “understanding … of different cultures”, “the values of different cultures,” and “made me value diversity.”

**Summary**

Cultural competence is recognized across healthcare disciplines as a critical aspect of healthcare delivery and a necessary component of healthcare education. Within occupational therapy education, accreditation standards require curricula to address the influence of culture, socio-cultural, and lifestyle factors on human behavior, and their potential impact upon healthcare outcomes. Increasingly, legislative, accreditation and regulatory requirements also emphasize culturally competent practice.

To prepare healthcare providers for culturally competent practice, students need multiple opportunities to explore their personal values, increase knowledge of diverse cultures, and develop cross-cultural communication and clinical skills in the classroom and in clinical education. This 6-hour, two-day program was established to provide a supplemental opportunity within the confines of extensive, prescribed curricula to support self-exploration, and increase knowledge, skills, and interdisciplinary dialog to advance the process of becoming culturally competent practitioners. Although this program included only one university, with small numbers of students, results found this educational initiative, combining traditional teaching methodologies, case studies, and a participatory community forum, indicated possible heightened awareness among occupational therapy students of how their values and attitudes can impact
practice and increased perceived knowledge for all participants, confirming the value of this interdisciplinary program for students from many health disciplines.

This initiative can be replicated and/or adapted by other institutions to provide opportunities for experiential learning, including community and interdisciplinary dialog, and opportunities to build skills for culturally competent practice. Clinical education is a backbone of healthcare education to ensure that students competently use and apply knowledge and skills in practice settings. Currently, the challenge for healthcare educators is to infuse their extensive curricula with opportunities for understanding the complex relationships between culture and health care, enabling students to build the interpersonal, communication, and clinical reasoning skills necessary to provide quality healthcare services to diverse populations. While health care professions educators also face challenges meeting accreditation standards and the demands of 21st century practice, 21st century practice requires all disciplines to acknowledge the importance of cultural competence to provide effective health care for increasingly diverse populations. However, educational institutions seeking to document educational outcomes need to appreciate the difficulties of quantifying perceived changes in cultural competency, in order to properly evaluate these curriculum initiatives.
References


22. Horowitz B, Olowu T, Vanner E. Strategies to promote culturally competent occupational therapy practice. Short course presented at the American Occupational Therapy Association’s Annual Conference; May 20, 2004 Minneapolis, MN.


