PICO Question: *Among health professional students, particularly DPT students, is clinical education more effective than international immersion in developing cultural competence?*

 By 2060 the US population will be significantly older and more racially and ethnically diverse.1More explicitly, the 65 and older population will double and the 85 and older group will triple by 2060. The United States will become majority-minority for the first time in 2043, and no group will make up a majority.1 As society grows older and becomes more diverse healthcare must accommodate these changes to provide optimal care that meet the needs of each patient. Health disparities are extensive among ethnic groups and are often attributed to a lack of access that results from health care provider insensitivity to cultural needs of the patient.2 Culture is vital to a person’s existence and shapes how they view the world; therefore, it must be acknowledged and incorporated into healthcare practice. And health care practitioners need to understand how cultural learned values and customs affect people’s health beliefs and practices.”7A great body of literature exists from many health professional programs like medicine, nursing and social work that have established initiatives and restructured curricula to teach cultural competency and better prepare students to treat the growing non-majority cultures as future healthcare providers. For example, Larson et al explored international cultural immersion among 13 undergraduate nursing students, which is becoming an important alternative to facilitate cultural competency in nursing.10The cultural immersion elective course focused on international community health nursing in Guatemala; and students attended intensive one-on-one Spanish language classes while abroad while living with a Guatemalan family in rural villages.10 The two-week immersion course included the five constructs of cultural desire, cultural awareness, cultural skill, cultural knowledge, and cultural encounter.10 Unfortunately, literature concerning cultural competency within physical therapy programs is minimal, but hopefully burgeoning. Moreover, though this study focused on nursing students it provides a framework for PT programs to adopt to develop cultural competency among students and better prepare them for treating diverse patients.

 As a third year physical therapy student who will graduate in less than a year and face the challenge of providing quality care and meeting the needs of my patients I wanted to explore the development of cultural competence among doctor of physical therapy (DPT) students. More specifically I wanted to know: among health professional students, particularly DPT students, is clinical education more effective than international immersion in developing cultural competence? I’ve had clinical rotations in diverse settings, but I didn’t feel these experiences prepared me to the extent I will need when treating a diverse population. Additionally, I am traveling to Guatemala this spring and wanted to investigate the possibility of becoming more culturally competent during an international service-learning experience; and ultimately find which approach is most effective at developing cultural competence among doctor of physical therapy students.

 Cultural competence is often difficult to define and describe in a few words; however, the simplest description I found says, cultural competence is “a skill and understanding that evolves over time and study.”6 The acquisition of cultural competence exists in stages; and Purnell and Paulanka developed an in-depth analysis of the development of cultural competency that consists of four stages which is often used to evaluate other programs.6 As presented by Purnell et al, Stage 1 is the development of awareness of one’s own existence, sensations, thoughts, and environment without letting it have an undue influence on those from other backgrounds. Stage 2 is demonstrating knowledge and understanding of the client’s culture; stage 3 is accepting and respecting cultural differences; and stage 4 is adapting care to be congruent with the client’s culture. There are several models of cultural competency development that differ slightly; however, the basis of developing cultural competency begins with the individual assessing their own beliefs, thoughts, biases, background; learning about a different culture and accepting culture as a significant component of a person’s life; and ultimately incorporating the clients culture into your treatment. More simply, the three domains of cultural competency include, beliefs, knowledge, and skill.9 Finally, cultural competency is not something you master, but an on-going process that should continue over a lifetime. The good thing is that many institutions are finding creative ways to prepare students to become culturally competent professionals. Some initiatives consist of incorporating diversity into the PT curriculum, assigning students to clinical affiliations in an unfamiliar area, conducting service learning abroad, and providing pro-bono experiences in culturally diverse settings.

Babyar et al explored if and how cultural and gender issues are included in entry-level the physical therapy curricula in New York State. Thirty-four faculty members from nine New York State PT programs completed a survey assessing the type, frequency, source, and situation for references that they make regarding gender difference, race, cultural, religious, socioeconomic, and sexual preference issues.4 Unfortunately, only nine of the thirteen program directors provided information about the cultural and gender composition of the faculty and student body and there was a 25% response rate from faculty members. Results show a lack of diversity among faculty and students. Additionally, the most common source of references was personal experience and instructors only made 1-5 references during the course. The results suggest cultural and gender issues are discussed in the New York State PT curriculum, though minimally. Also, instructors must be responsible for ensuring the accuracy of cultural and gender assumptions while sharing personal accounts because students typically respond positively.4 And because of the lack of diversity among PT faculty and variability in exposure to cultural and gender issues, students must seek additional resources and experiences, in addition to, personal accounts to strengthen their sensitivity and ultimately their cultural competence for practicing in a diverse society.

According to Romanello, Cedarwood University has successfully incorporated cultural competence into their PT curriculum. In this ethnographic qualitative study, the author assessed how one PT program integrated cultural competence into their PT curriculum. Data collection consisted of document analysis, a visit to the campus, class observations, and interviews. Inductive constant comparative analysis was conducted to generate themes from the data collected. Cedarwood University incorporates all four characteristics of integration of cultural competency including, (1) developing a strategic plan where faculty were committed to diversity, (2) immersing faculty and students in diverse environments, (3) using artifacts, language, and teaching methods to raise diversity to a conscious level, and (4) incorporating reflection and discussion that allowed individuals to discover their own cultural values and beliefs, and those of others.5 They made integration of cultural competence a priority and engaged in a 10-year process to create a strategic plan to integrate cultural competence in their curriculum. This consisted of recruiting students from various backgrounds, immersed students in diverse clinical experiences, etc. Romanello eloquently concludes, “Change started with faculty member’s vision of what future physical therapist practitioners need in order to care for a multicultural population.”5 The following results and strategies provide a successful theoretical framework of integration of cultural competency into PT curriculum for which other program may emulate.

Another strategy to facilitate cultural competence and prepare DPT students for a multicultural patient population involves providing pro-bono opportunities in culturally diverse settings within the United States. Jill Black, Director of Rehabilitation at Southern Delaware Physical Therapy investigated the acquisition of cultural competency among students involved in a student physical therapy clinic in a homeless shelter. Students from Thomas Jefferson University conducted a free weekly clinic at a homeless with people from a cultural background different from that of the physical therapist. The clients of “Hands of Hope” are primarily African American, homeless and male; whereas, the students are largely white, middle class, and female. 6 Patterns and themes that emerged from field notes from observation sessions, transcriptions of interviews and journal analysis consist of, students expressing initial expectations, impressions, and subsequent changes in understandings and perspectives about their clients; students actively sought common ground or connections with their clients; demonstrated respect for their clients’ time, values, and priorities.6 The themes/patterns generated from this study imply this clinical immersion experience generated a level of cultural competence among PT students who participated in this experience.

An additional approach to developing cultural competency among DPT students is international service-learning, also called cultural immersion. Ekelman et al described the educational strategies used and explored student learning and development of cultural competent skills that occurred prior to, during, and after a 1-week immersion experience in a small Mayan village in southern Belize. One undergraduate physical therapy student and four undergraduate occupational students enrolled in a research and study abroad course participated in this experience. A grounded theory process was utilized to determine how the field experience affected the students’ cultural awareness.7Data included student journals, reflection papers, field notes, and transcription notes from a videotaped formal discussion of the experience. Ekelman et al utilized four strategies used in health care practitioners (HCP) education to develop cultural competence to assess the acquisition of cultural competence among the participants. The most rudimentary and first strategy is *knowledge-oriented strategies*, which provide student information about their own and other cultures using lectures, group discussions, and written and visual materials.7 Secondly, *awareness-oriented strategies* focuses on experiential processes and identifies the students ability to see situations from their own and others’ viewpoint with accuracy.7 Thirdly, *affect-oriented strategies* focus on the emotions involved when confronting diversity issues. And lastly, *a skill-oriented strategy is* the most advanced stage that nurtures the student’s ability to perform effectively in multicultural interactions. Results showed that students developed cultural competence beyond the knowledge and awareness levels; and the themes that were generated were anticipation, heightened vigilance, making connections with villagers, meaningful confusion, reflection, and relevance to practice.7 In the end, this immersive experience allowed students to understand the relationship between culture and professional practice. This study provides educational strategies to develop cultural competence during a 1-week immersion experience.

Continuing with international service-learning as an effective method to develop cultural competency Sawyer et al investigated the perceived impact of a 1-week physical therapy clinical education experience in Jamaica on the 8 DPT students from Arcadia University who participated.8 Data consisted of responses to an emailed open-ended questionnaire and a focus group conducted 5 months after the experience in Jamaica. There questionnaire provided insight into the participant’s opinion regarding the international experience and specific categories like professional preparation, the experience itself, benefits of participation, and recommendations for the program.8 Students’ perceptions were grouped into four general categories: (1) an expanded worldview, (2) an expanded view of physical therapy, (3) changes within themselves, and (4) changes within themselves in the role of PT student.8 Opportunely, these perceptions are essential aspects of cultural competence. Overall, students attributed these perceptions to their experience in Jamaica and think an 1-week international clinical experience has important, broadening, and lasting benefits to them as professionals, individuals, and members of a global society.8 Furthermore, international service-learning proves to be a valuable experience for DPT students and cultivates a level of cultural competency that will benefit them as future health care professionals.

Additionally, Dupre et al utilized Cross et al (2002) stages of cultural competency as their conceptual framework to assess the progression of cultural competency among 5 DPT students during a 2-week immersion community service experience in Nicaragua. Continuum of Cultural Competency (Cross et al) begins with cultural destructiveness, cultural incapacity, cultural blindness, cultural precompetence, cultural competence and finally cultural proficiency.9 Data consisted of a pre- and post-trip questionnaire designed by the researchers. This survey was used to gather information on the students' beliefs, knowledge, and experiences. It consisted of open-ended questions like, describe your knowledge of Nicaraguan culture related to medical beliefs, religious beliefs, economic status, level of edcuation, parenting approaches, and definition of disability. Students were also asked to identify the goals they hoped to accomplish through this course and the barriers to providing healthcare that they expected to encounter.9 In the end, all 5 students met descriptive criteria of Stage 4: Cultural Precompetence. Characteristics of this stage is self-awareness of weakness in the ability to serve individuals of another culture but intention to improve, the desire to deliver quality care, a lack of information on what is possible and how to proceed and has a false sense of accomplishment or of failure that prevents them from progressing to the next stage.9 These results suggest a 2-week international immersion experience can also improve cultural sensitivity and cultural competence among DPT students. This study highlights an additional service learning model to develop cultural competence among physical therapy students.

As illustrated by the research presented the body of literature regarding cultural competency among physical therapy students is burgeoning. However, minimal research exists regarding this subject matter and no study exist that compares clinical experience with international immersion in developing cultural competence. Also, every study that related to the development of cultural competence among DPT existed as a qualitative study that assessed the acquisition of cultural competence among students while identifying common themes. Consequently, higher level research designs are needed and would benefit the validity of the study results.

Characteristic of qualitative studies is collection of data in various ways (observation, journaling, interviews, blogging, etc.) and subsequently the data is then analyzed in order to generate patterns or themes within the data that can be used for future data collection. Also, reflection is a key component of each service-learning study that takes the form of individual journaling, group discussion, photography collections, presentations, portfolios, etc.11 Fascinatingly, a newer tool to support and facilitate reflective thinking is blogging (electronic journaling). Though journaling allows critical thinking, self-learning, and sensitivity to cultural differences, there is an inherent limitation of exchange of thoughts and feelings among fellow classmates. Therefore, web logs or “blogs” is shared with a larger audience and subjected to feedback from readers. Group blogging is “an organized forum for intensive, high quality reflection to occur in an efficient manner.”11 In summary, group blogging was found to be an effective tool to promote reflection in allied health student and short duration service-learning experiences.11

Unfortunately, there are no studies that compare the effectiveness of different intervention; and only a single method of developing cultural competency, primarily service-learning is explored in each article. Despite the lack of comparison of interventions to develop cultural competency, each experience fostered some level of cultural competence and provided a positive experience for participants; and diversity is evidently being incorporated into the PT profession and will hopefully expand in the near future. In the end, I was unable to answer my initial question because of the lack of randomized control studies or other high level studies that compared both interventions I presented. Due to the diminutive body of evidence and the predominance of service learning research that exist on the subject of developing cultural competence among DPT students, I have generated another question that will be the foundation of my capstone project. *What are the different types of service learning experiences utilized among PT programs to develop cultural competency among PT students?* This question is more specific and appropriate for my project in which I will develop a presentation for students participating in the service-learning experience in Guatemala where I will discuss service-learning as a tool to develop cultural competence among DPT students. Therefore, limitations of the following studies include small sample sizes and low level (level IV) research design. These limitations don’t allow for generalization to a larger population and fails to find the causal relationship between cultural competence and physical therapy students. Additionally, no follow-up was conducted with student participants once they became healthcare professionals, thus it is unknown whether they maintained and transferred beliefs, knowledge, and skills learned through their clinical or immersive experience.

Clinically each study is applicable to practice because each experience provided an opportunity for DPT students to gain some level of cultural competence that will benefit them professionally. In summary, regardless of whether students acquire cultural competence from the PT curriculum, clinical affiliations, or cultural immersion, the goal is to prepare culturally competent practitioners that will provide appropriate and effective care to an increasingly older and diverse population.

**2,650 words**

**References:**

1. U.S. Census Bureau Projections Show a Slower Growing, Older, More Diverse Nation a Half Century from Now. U.S. Department of Commerce: United States Census Bureau. Available at: <http://www.census.gov/newsroom/releases/archives/population/cb12-243.html> Posted December 12, 2012. Accessed November 14, 2013.
2. Saver, C. Cultural Competency benefits patients, therapists. Therapy Insider. June 2007; 6-9.
3. Jewell, D. *Guide to Evidence-Based Physical Therapist Practice*. Massachusetts: Jones & Bartlett Learning; 2011.
4. Baybar S; Sliwinski M; Krasilovsky G. Survey of Inclusion of Cultural and Gender Issues in Entry-Level Physical Therapy Curricula in New York State. Journal of Physical Therapy Education. 1996; 10(2): 53-62.
5. Romanello M. Integration of cultural competence in physical therapist education. Journal Of Physical Therapy Education [serial online]. April 2007;21(1):33-39.
6. Black J. "Hands of Hope": A Qualitative Investigation of a Student Physical Therapy Clinic in a Homeless Shelter. Journal of Physical Therapy Education. 2002; 16(2):32-40.
7. Ekelman B et al. Developing Cultural Comptence in Occupational and Physical Therapy Education: A Field Immersion Approach. Journal of Allied Health. 2003; 32(2):131-137.
8. Sawyer KL, Lopopolo R. Perceived impact on physical therapist students of an international pro bono clinical education experience in a developing country. J Phys Ther Educ. 2004; 18(2):40-47.
9. Dupre A-M, Goodgold S. Development of physical therapy student cultural competency through international community service. J. Cult. Divers. 2007;14:126–134.
10. Larson KL, Ott M, Miles JM. International cultural immersion: en vivo reflections in cultural competence. J. Cult. Divers. 2010;17:44–50. Available at: http://www.ncbi.nlm.nih.gov/pubmed/20586365.
11. Wright L, Lundy M. Blogging as a Tool to Promote Reflection among Dietetic and Physical Therapy Students during a Multidisciplinary International Service-Learning Experience. J. Allied Health. 2012;41:e73–8. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22968780>.