

## Cultural congruency in evidence-based practice: Short Communication

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### Abstract

The PICO (Population/Problem, Intervention, Comparison, Outcome) framework is widely accepted for posing evidence-based practice questions. This framework offers prelicensure nursing students a structured process for synthesizing nursing knowledge with the best available evidence to make decisions for practice. However, students in an international outreach course may find that evidencebased practice is not available incountry; furthermore, it may not be congruent with a population's culture. Faculty guidance helps students enrolled in international outreach courses to integrate cultural competence into the PICO structure. A case study illustrates how the framework was applied during an undergraduate nursing outreach course to Nicaragua.

### KEY WORDS

Cultural Competence – Cultural Congruency – Evidence-Based Practice – International

The goal of evidence-based practice (EBP) is to provide the highest quality of care through multiple research results, aligned with individual preferences, to every patient. Because these preferences are strongly influenced by cultural factors, cultural competence is an important component of evidencebased nursing. For prelicensure nursing students, cultural competence is operationalized through a set of skills that increases their understanding and appreciation of cultural differences and similarities within, among, and between groups (KerseyMatusiak, 2019).

Faculty leading international service student trips are challenged to develop cultural competence in their students (Mareno & Hart, 2014). An innovative strategy to address this challenge is to use the PICO (Population/Problem, Intervention, Comparison, Outcome) framework as a structured approach for posing EBP questions (Melnik & FineoutOverholt, 2018). Previous work has demonstrated that PICO quickly engages undergraduate students in exploring nursing practice problems (Davis & Eastland, 2018).

Faculty members can build cultural competence

development into the PICO framework over several stages of an international service-learning trip. During the initial planning stage of travel with students, the faculty member initiates discussions on how to include culture when exploring the country's needs before students leave the United States. The faculty member refers to Leininger's (2001) trans-cultural nursing theory in guiding students to include a population's cultural components (ethnicity, gender, language, nationality, occupation, physical and mental ability, race, and sexual orientation) in their PICO questions. The National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Health and Health Care is a useful reference for ensuring that the scope of the students' PICO questions includes culture (US Department of Health and Human Services, 2000).

After developing a PICO question to be investigated, the student next identifies applicable interventions to compare for answering the question. The student searches a minimum of five databases, including three bibliographic databases and one gray literature source. Students appraise interventions that fit within the cultural context of the target population. This context involves social structure dimensions such as technology, religion, kinship and family influences, political structures, economic factors, and educational opportunities (Leininger & McFarland, 2006). A study's consideration of diet, family structure, housing, and cultural norms in the intervention is identified. This appraisal approach requires the student to uncover where each study was conducted to reveal the setting's associated health care system. For example, was the study conducted in a country with national health insurance? Other influences, such as socioeconomic factors affecting the accessibility and cost of interventions, are also considered. Adding cultural competence to the comparison of interventions also means that the student includes the time frame over which the intervention studies were conducted. This will reveal differences in the impact of a shortterm or longterm intervention

### INTERNATIONAL OUTREACH CASE STUDY:

Each semester, community health nursing students at the Purdue University Northwest College of Nursing analyze health disparities in Northwest Indiana, where the university is located. Hispanics have long gravitated to this area for available employment. This population is disproportionately affected by diabetes, with demonstrated higher morbidity and mortality rates, when compared with non-Hispanic whites (Whittemore, 2007).

Given that students had experience with the Hispanic community, the first international outreach course, to Nicaragua, was designed to reflect this work.

The first and third authors, community health nursing faculty members, collaborated as trip leaders to plan the noncredit course, develop the syllabus, and arrange the travel logistics for the week-long stay. The course was designed with the Purdue University Northwest outreach partner, Viva Nicaragua!, located in Granada, Nicaragua. This private, nonprofit agency provides college students noncredit field internships and home stays with local families. In June 2017, 14 female nursing students, sophomores and juniors, enrolled in the course. Their objectives included the following: to compare and contrast the use of EBP in Nicaragua and the United States and to examine cultural influences on health care values, practices, preferences, and beliefs. Students met the learning objectives for the course through clinical experiences, debriefing group discussions, and a reflective travel journal. Approximately half of the students were bilingual, with a working knowledge of the Spanish language.

The leading causes of death in Nicaragua from chronic non-communicable diseases are ischemic heart disease, diabetes mellitus, and cerebrovascular disease (Pan American Health Organization, 2017). The Viva Nicaragua! director identified chronic disease management as a priority in the city of Granada community. As part of a research internship, one student from the group participating in the international outreach course (the second author) initiated a project to identify, appraise, and synthesize the best available evidence for culturally competent management of type 2 diabetes for the adult Hispanic population. This project fit with Viva Nicaragua's mission to empower the citizens of Granada to improve their lifestyles and health. Nurses in Granada communicated that they used colorful posters in clinics for health teaching and that there was a lack of glucose monitors.

The PICO question was: In the Hispanic population, what is the application of cultural competence in the management of type 2 diabetes? The database search included published English-language systematic reviews and peer-reviewed studies published between 2013 and 2017. The Joanna Briggs Institute (JBI), CINAHL, Cochrane, and PubMed/Medline databases were searched using the search words and phrases diabetes management, type 2 diabetes, type 2 diabetes Hispanics and Latinos, type 2 diabetes management, and type 2 diabetes management cultural competence. JBI methodology was used for analysis of the text words contained in the title, abstract, and index terms. The studies' participants were limited to adults (18 years and older) who had diagnosed type 2 diabetes and self-identified as Hispanic or Latino. The methodological quality of the articles was evaluated

based on the JBI critical appraisal instruments for randomized controlled trials and quasi-experimental studies (Tufanaru, Munn, Aromataris, Campbell, & Hopp, 2017).

Following the statement of the research problem, the nursing student began to investigate interventions appropriate to the population. According to the literature search results, diabetics who develop self-management skills have improved clinical outcomes, enhanced quality of life, and decreased costs. In the United States, barriers to self-management education were identified as a combination of health and social issues, such as lack of access to care, low English proficiency, low literacy, and cultural beliefs (Gonzalez, Berry, & Davison, 2013). Culturally appropriate education for the Hispanic population was shown to have short- to medium-term effects on glycemic control, diabetes knowledge, and healthy lifestyle choices (Attridge, Creamer, Ramsden, CanningsJohn, & Hawthorne, 2014).

Family-based interventions improved the patients' knowledge and skills in diabetes management (Hu, Wallace, McCoy, & Amirehsani, 2014). Another effective intervention in diabetes management was using community resident health workers as bridges between communities and health care providers and engaging community members to prevent diabetes and its complications through education, lifestyle change, self-management, and social support (Little, Wang, Castro, Jimenez, & Rosal, 2014). These interventions align with Nicaragua's National Health Plan's health education objectives: to promote knowledge of healthy attitudes and practices among individuals, families, and communities and to increase survival among older adults (Pan American Health Organization, 2009). In addition, they fit with the community development focus of Viva Nicaragua!

The PICO question comparison was based on the outcome of educating the population about diabetes management versus culturally congruent options for educating the population. The nursing students had clinical experiences at a rural public clinic, at a private urban community center, and at home visits. Students considered various methods to best provide education in Granada, including posters, demonstrations, and informal teaching to those people who were waiting for clinic visits. A Viva Nicaragua! Staff member provided translation as needed. The students provided interactive EBP family education during home visits in the community. Each day a respected community member accompanied the group on the home visits, introducing the students to residents, facilitating relationship building, and providing reinforcement to families for self-management education. Including all of the multigenerational family members in the home visit was key for communicating respect. The family-based education interventions incorporated nutrition, exercise,

glucose levels and monitoring, medications, coping mechanisms, and problem-solving scenarios. Students quickly learned to modify their problem-solving scenarios to reflect the common diet consisting of rice and beans, the lack of electricity in the homes, and scarce potable water.

The international application of EBP was discussed in the de-briefing sessions. A major barrier to EBP was lack of infrastructure, including transportation to clinical services, and lack of accessible resources such as medications. Nicaragua is one of the poorest countries in the Western Hemisphere. Health care is available through Ministry of Health services and private providers, but travel from the rural communities is a challenge. Supplies at the public clinics are limited, and the cost of medications from a commercial pharmacy can be out of reach for patients.

Students were required to reflect on how their desired outcome of educating the residents of Granada was met or not met. The travel journal linked students' in-country experiences with the course objectives and the specific desired outcomes related to diabetic education. One reflective prompt was: "Discuss the use of current evidence in the nursing practice in Nicaragua." The student responded that nurses provided respectful and compassionate care that was appropriate for the challenging environment. Another prompt was: "Speak to cultural influences on health care values, practices, preferences, beliefs." The student responded: "During a home visit, I was teaching the grandmother about a healthy diet for her diabetes and hypertension and learned that she had no transportation to health visits or the pharmacy and could not see her medication labels. It was then that I realized a healthy diet was not the priority when practicing culturally competent nursing care."

#### **CONCLUSION:**

Faculty guidance through the PICO steps facilitates student growth in understanding and appreciating cultural impacts on EBP. The goal of culturally competent nursing practice, just like EBP, is to provide the highest quality of care to every patient. Strategies for incorporating aspects of culture, including social structures and relationships, language proficiency, and economics in the critical appraisal of interventions, can be implemented as part of an international outreach course. These include helping students pose PICO questions at the beginning of the course and then using reflective journaling to evaluate the application of EBP while in-country.