The increasing diversity of the U.S. population (Passel & Cohn, 2008) requires a culturally sensitive health care workforce. The American Association of Colleges of Nursing (2011) addresses the need to provide culturally sensitive care and suggests clinical experiences in graduate core curriculum to prepare advance practice nurses to work with these diverse populations. Cultural competence is defined as the attitudes, knowledge, and skills necessary for providing quality care to diverse populations (AACN, 2009). Campinha-Bacote and Munoz (2001) describe the development of cultural competence as having five components: cultural awareness, cultural knowledge, cultural skill, cultural encounter, and cultural desire. Although cultural competence is often conceptualized as an end point or goal, it is more useful to recognize it as an ongoing iterative process (Clark et al., 2011).

Schools of nursing have integrated opportunities for students to develop cultural competence through a variety of modalities (Lipson & Desantis, 2007). One of these modalities is an immersion experience in which students are engaged in a culture different than their own.
Service learning opportunities during these experiences provide students with “real-world learning experiences that enhance their academic learning while providing a tangible benefit for the community” (Campus Compact, 2010, para. 1). Lipson and Desantis (2007) list the following strengths of immersion programs:

(a) increased student self-awareness of their own health care preconceptions and how their own beliefs, values, practices, and behaviors affect care, interactions with patients, and health teaching;

(b) enhanced ability to deal with the situational, environmental, and sociocultural factors affecting their clients’ health and living conditions; and

(c) ability to learn from patients and negotiate mutually satisfactory and culturally appropriate interventions (p. 16S-17S).

The nursing literature provides direction in planning for graduate international clinical experiences in developing countries. Current literature focuses on the provision of health care services (Ailinger, Zamora, Molloy & Benavides, 2000; Allen, Meadows-Oliver, & Ryan-Krause, 2008; Bosworth et al., 2006) and general strategies for international medical missions (Chapman, 2007; Solheim & Edwards, 2007). This literature also provides specific guidance about recommended preparations for both participants and programs. However, there is only limited discussion in the literature of the impact of the programming on the community.

In discussing the ethics of international programs for nursing students, Levi (2009) questions the value of “drop in care” in which services are provided without connection to the current delivery system, leaving patients unable to access follow-up care. In the long term, “drop in care” has the potential to increase dependency on outside resources (Levi, 2009). The Commission on Health Research for Development (as cited in Koop, Pearson, & Schwarz, 2001) recommends that five percent of funding for large externally funded projects ought to be used to strengthen the health care infrastructure through capacity building in developing countries. Capacity building is defined by Milèn (2001) as

the process by which individuals, groups, organizations, institutions and societies increase their abilities to: 1. Perform core functions, solve problems, define and achieve objectives. 2. Understand and deal with their development needs in a broad context and in a sustainable manner (p. 5).

When considering health care infrastructure, capacity building through training medical personnel and building health care institutions enables developing countries to meet their own health care needs. While international clinical experience courses are not “large externally funded projects,” the intent of this recommendation can be addressed by integrating service learning activities within existing in-country networks and contributing to capacity building efforts during the course.

This article discusses the planning, implementation, and evaluation of a Family Nurse Practitioner (FNP) international clinical experience in rural Honduras. The experience was unique in that it addressed the immediate health care needs of the population, while also collaborating with a local capacity building project. The local project was a grassroots effort by Honduran community members who support the building of a local hospital. Still in the early stages of planning, this hospital, the Yojoa International Medical Center (YIMC), will provide for the unmet health care needs of this rural Honduran community regardless of the ability to pay.

Background

Honduras is the second poorest country in
Central America with 65% of the population living in poverty (Central Intelligence Agency, 2011). This country lacks an adequate infrastructure to provide clean water and sanitation (World Health Organization, WHO, 2008), thereby increasing the risk of parasitic disease for the population. Smith, DeKaminsky, Niwas, Soto, and Jolly (2001) reported that over half of their rural Honduran patients tested positive for roundworms. While diseases, such as parasitic infections, are a common and significant health care problem, Hondurans also suffer from other acute and chronic diseases.

The WHO (2006) lists the top ten causes of death in Honduras as heart disease, HIV/AIDS, perinatal conditions, cerebrovascular disease, diabetes mellitus, diarrheal diseases, lower respiratory infections, nephritis and nephrosis, hypertensive heart disease, and protein-energy malnutrition. The need to treat chronic disease stresses an already limited health care infrastructure. This leaves many Hondurans without adequate health care resources, particularly in rural areas where there is greater poverty (Gindling & Terrell, 2010) and limited access to adequate health care services (Baker, Bazemore, & Jacobson, 2008).

Planning

Planning began six months prior to the proposed international clinical experience and built upon the previous three years of university undergraduate programming in Honduras. Initially, faculty members and a visiting Honduran physician representing the YIMC met to discuss the feasibility of an international clinical experience with FNP students. Once program and curricular details were worked out by administration and faculty, objectives for the international clinical experience were identified. Learning about the Honduran culture and health care system was a primary student objective. Additional objectives focused on service learning and included (1) to provide culturally sensitive health services to Honduran people; (2) to provide health teaching to school aged children and their parents; and (3) to advocate for the YIMC capacity building project.

Planning by faculty included how best to integrate the clinic within the Honduran health care system and determining the most beneficial experiences for students. Providing assessment, diagnosis, and interventions for patients during a two day general clinic, conducting physical exams in a public elementary school, and tours of a private and public hospital were identified as relevant and feasible experiences. Logistical aspects of programming such as housing, meals, transportation, and interpreters were arranged through the Honduran network previously developed by undergraduate programming in Honduras.

In preparation for the international clinical experience, faculty and students read articles such as So You Want to Go on a Medical Mission (Chapman, 2007) and blogs that discussed preparing for similar experiences. A local nurse who had traveled to Honduras on several occasions shared her experiences and suggestions with students during one of the planning meet-
As part of their course assignment, students researched country-specific medications and assisted with ordering and purchasing medications for use in the clinics. Students used the WHO guidelines (WHO, 2004; WHO & UNICEF, 2008) to develop protocols for the treatment of the most common adult and pediatric medical diseases. Physical exam documentation forms were developed by students for use in the schools and clinics.

*Clean Water* teaching handouts that outlined a method of water disinfection using sunlight (Meierhofer & Wegelin, 2002) were prepared in Spanish. *Oral Rehydration Solution* teaching handouts with directions for a simple hydration solution made with ingredients readily available in most households were prepared in Spanish (Rehydration Project 2010). Handouts for hand washing and dental hygiene were also prepared.

**Implementation**

After six months of planning, the group traveled to Honduras. The first day included tours of public and private hospitals. This provided perspective on the vast differences between the small, modern, mostly empty private hospital and the massive, antiquated, overflowing public hospital.

The following day, the group used their eight large suitcases of medical supplies to set up the temporary clinic in a rural hotel near the site of the future YIMC. That evening, the group met with community leaders to discuss plans for the YIMC and the next days’ clinic operations. Patient guidelines and the *Clean Water* and the *Oral Rehydration Solution* teaching handouts were reviewed with the sponsoring Honduran physician who agreed with the planned guidelines and teaching.

Despite the lack of formal advertisement, there were people waiting the following morning when the group returned to the clinic site. FNP students rotated through and worked in all clinic areas: screening, patient exam areas, and pharmacy. The instructors circulated among students to answer questions, provide feedback, and assist where needed.

The clinic greatly benefited from involvement of the Honduran community members associated with the YIMC. A Honduran physician was present during the clinic days assessing patients and providing consultations for student questions and concerns. The patient registration area was staffed by local community members, one of whom was a nurse. Additionally, ten high school students from a local bilingual school served as interpreters, translating histories, explaining physical assessments, and assisting with the patient teaching.

Once the clinic started, most patients moved as family units in a fairly structured, albeit slow manner through the clinic. The registration area managed the flow of the clinic where patients were weighed and a medical form was initiated with name, age, and gender. Community members also administered albendazole (mebendazole, parasite medication) and completed the *Clean Water* handout teaching. The Honduran nurse used the registration process as an opportunity to check the immunization status of all patients. Patients either received needed immunizations or were identified for her follow-up at a later date.

After registration, patients were directed to the screening area, where FNP students obtained vital signs, evaluated blood sugars when appropriate, and established the chief complaint. Patients then were seen in one of the exam areas staffed by FNP students or the Honduran physician. Working with an interpreter, each FNP student obtained histories, conducted focused physical exams, and provided treatments and teaching for all family members.
treatments, teaching and prescriptions were documented on the medical form. Patients were then directed to the pharmacy where they turned in their medical forms and received medications, if needed. Patients requiring treatments and medications that were not available were also seen by the Honduran physician for referral to appropriate in-country resources.

Two FNP students and their interpreters worked in the pharmacy to fill prescriptions noted on the medical forms. This required safe dosing, packaging unit dose amounts, and providing verbal and written instructions in Spanish. In addition to their prescribed medications, all patients received a 30 day supply of vitamins with iron. As medications were depleted on the second clinic day, the pharmacy FNP students substituted alternative medications. In two days, FNP students treated more than 350 patients. Common diagnoses included pain (headache, musculoskeletal, abdominal), respiratory disorders (asthma, infection), skin disorders (scabies,

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean Score</th>
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<tbody>
<tr>
<td>1. I believe I am more sensitive to cultural diversity after participating in this course.</td>
<td>4.8</td>
</tr>
<tr>
<td>2. Since my return to the United States, I have applied the knowledge gained in Honduras in clinical situations.</td>
<td>4.4</td>
</tr>
<tr>
<td>3. I had fears about traveling out of the country to participate in this course.</td>
<td>3.2</td>
</tr>
<tr>
<td>4. To assure care over the long term, I believe it was important that our clinic worked in collaboration with the Honduran health care system.</td>
<td>5</td>
</tr>
<tr>
<td>5. I believe it is important to build health care capacity so Hondurans can meet their own health care needs.</td>
<td>5</td>
</tr>
<tr>
<td>6. I plan to return to Honduras to provide health care services at some time in the future.</td>
<td>4.2</td>
</tr>
<tr>
<td>7. I plan to be an advocate for the Yojoa International Medical Center.</td>
<td>4.8</td>
</tr>
<tr>
<td>8. My professional goals for this course were met.</td>
<td>5</td>
</tr>
<tr>
<td>9. My personal goals for this course were met.</td>
<td>4.8</td>
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*Table 1: Quantitative Survey of Students with Mean Scores*
During the subsequent two days, the FNP students conducted health assessments on more than 200 students at a public elementary school. The FNP students provided parents with a form documenting their assessment findings. The Honduran community continued their support in the school clinic. A Honduran physician assisted with the assessments, and was available for consultations. The community volunteers were responsible for registration, measurements, and the flow of the students on both days. High school student interpreters provided the essential communication link.

While assessments were conducted in the elementary school, FNP students also taught groups of waiting children and parents about dental care, hand washing, oral rehydration directions, and disinfecting water using the prepared teaching handouts. Toothbrushes, toothpaste, and soap were distributed following each lesson. The toothbrushes and soap supplies were gone long before the end of the second day, but the children and their parents continued to attend the lessons.

Students and faculty reflected on their experiences during two late evening meetings, sharing their perceptions and feelings, discussing individual cases, and identifying differences between U.S. and Honduran health care systems. The last evening, the group met again with community leaders for dinner and celebration. Future visits were discussed and plans were made to establish an ongoing fundraiser, selling Hon-

### Table 2: Student Qualitative Questions

<table>
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<tr>
<td>1. You worked with Honduran physicians and nurses in the clinic and school. How often (estimated percentage) did you refer patients to the Honduran health care professionals? What type of patients/problems did you refer?</td>
</tr>
<tr>
<td>2. What positive short and long term impact do you think your work had on the Honduran community? Give examples.</td>
</tr>
<tr>
<td>3. What negative short and long term impact do you think your work had upon the Honduran community? Give examples.</td>
</tr>
<tr>
<td>4. The clinic was advertised as an effort of the Yojoa International Medical Center. As a provider in the clinic you were an advocate for the Yojoa International Medical Center. Please reflect on your role as an advocate.</td>
</tr>
<tr>
<td>5. What was most helpful for you as you prepared for this experience?</td>
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<tr>
<td>6. What changes, if any, would you have improved your sense of being prepared for the trip?</td>
</tr>
<tr>
<td>7. Have your experiences had any impact on you professionally? If yes, how?</td>
</tr>
<tr>
<td>8. Have your experiences had an impact on you personally? If yes, how?</td>
</tr>
<tr>
<td>9. Please add any other comments you would like to share about your experiences.</td>
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duran coffee, to benefit the YIMC.

**Evaluation/Lessons Learned**

The first time implementing a program offers opportunities and challenges for everyone involved. As with many international immersion experiences, learning occurred beyond the course objectives. Reflecting on the experience from the perspective of students, faculty, and community partners was undertaken to understand the impact of the program and to identify how to make future programs more effective.

**Student Evaluation**

At the completion of the course, five FNP students who participated in the program completed a survey consisting of nine quantitative and nine open ended questions. Quantitative data were reviewed; qualitative data were analyzed using QSR NVivo 9 qualitative software to code, retrieve and help manage the survey data. See Table 1 for the survey with mean scores for quantitative questions and Table 2 for the open ended questions used to gather qualitative data. Based on content analysis of qualitative data, six essential themes were identified that characterized the experiences of the students.

**Theme 1: Increased knowledge, skills, and confidence in the delivery of health care.**

Students valued many of the pre-clinic activities and felt these activities were important in building knowledge, skills, and confidence. Preparation ahead of time in terms of identifying expected health care issues and developing protocols to treat common illnesses made the actual clinic experiences more productive. Discussions with local health care providers and faculty who had traveled to Honduras were identified as especially helpful in preparation.

Being able to assess more than 500 people in just four days further developed FNP student clinical skills and confidence. The following student statements reflected this theme: “It gave me my first ‘taste’ of assessing, diagnosing, and treating patients. My experience helped build confidence and made me rely on basic assessment to diagnose without x-rays and lab data.”

**Theme 2: Appreciation of resources taken for granted in the United States.**

The need to bring medications and supplies helped students appreciate availability of resources in the United States. Talking with patients in the clinic about their health care needs and their lack of money to purchase medication provided students with insight into the struggle of families in developing countries. Student statements reflective of this theme included: “I felt ‘different’ when I came home. I looked at everything different. I realized that I take so much for granted. I hope to use this to my advantage and do more for others and the greater good.”

**Theme 3: Unexpected non material wealth/joy of the Honduran families.**

Students commented on the generosity and joy of the Honduran people. Although families lived in very difficult circumstances, their caring for one another was evident. A student comment reflective of this theme was:

> The one thing that I did not expect to see was the general happiness of the people and the culture. Of course life is difficult and harsh there, but the people seemed to be essentially thriving from a cultural and community standpoint from what I could see.

**Theme 4: Effective short-term impact but uncertainty about long-term impact.**

The clinics conducted by the FNP students were seen as being helpful and students felt they had a positive short-term impact on the Hon-
durian people through the provision of medications, vitamins, and health education. However, students were more uncertain about the long-term impact of their work as reflected in the following statements: “I highly doubt that the patient was able to actually follow through with the referral...” “A referral was made for a cardiology follow up. I assume that she was also unable to follow up with the referral as well.”

**Theme 5: Importance of advocacy.**

Students felt their advocacy for the YIMC was important and had the potential for making a long-term impact on the community. This theme was reflected by the following comments by two students:

*I hope the long term benefits are many. First, I hope that we provided a significant amount of public relation and advertising for the medical center project.*

*The biggest benefit may actually be the recognition that the medical center received through news media and word of mouth.*

**Theme 6: Personal challenges of international service learning**

An additional theme was identified based on a focus group and review of journals kept by students during the experience. The students identified significant mental stress in planning to travel overseas, such as making arrangements for children and jobs while gone. Physical challenges included the heat, gastro-intestinal illness, and challenging living conditions. Psychosocial challenges were the result of little downtime, limited privacy, much “giving” of oneself with the subsequent desire for time to recover.

**Faculty Evaluation**

Review of faculty reflections on their experiences revealed themes similar to those identified by students. Three faculty themes were identified.

**Theme 1: Unique learning experience for FNP students.**

Faculty members believed students had a unique opportunity to develop their critical thinking and collaborative skills as they provided care for large numbers of patients. Making decisions about what medications to prescribe when the first line drug choice was not available required collaboration and thinking through the needs of the patient. The increased confidence of students in their clinical skills as a result of their experiences was evident to the faculty members.

**Theme 2: Personal/professional impact of experience upon faculty.**

Faculty felt that the international clinical experience had a personal and professional impact on them as well as on the students. Faculty had previously worked with families from other cultures but not when they were the “minority” in the setting. The vulnerability they felt provided an appreciation and sensitivity for the experiences of patients. From a professional perspective, faculty found their experiences provided them with an important addition to their teaching as they have integrated cultural issues and examples into their course content.

**Theme 3: Importance of collaboration with the Honduran health care system.**

Faculty reflected upon the ethical issues related to providing care in a developing country (fostering dependence, implied superiority of health care practices, limited ability for follow-up, assuming that what works for Americans will work for the Hondurans). Working within the framework of the Honduran medical community helped alleviate some of those concerns. It was important to have Honduran practitioners available to answer questions and provide
consultation and follow-up care after the two day clinic. Many of the clinic patients received teaching related to improved health care choices. Faculty hoped the seeds for long-term change and self care were planted. Mutual trust and respect were a part of an ongoing yearly collaboration that contributed to the credibility of both partners. By being associated with the YIMC, the group brought greater awareness of the YIMC mission to the local Honduran community.

Community Partners Evaluation
The Honduran community partners also believed the program had a positive impact on their community. The physician representing the YIMC shared the following:

*I think this is an extraordinary experience because during all these years [you] have been able to better understand the shortcomings and potential of [our] health system. The central role of universities in the community has not been a rule in our country and the experience was more marked with churches and other humanitarian organizations [that] have focused on short-term needs looking at everyday problems… Your program has the potential to inspire intellectual growth that ultimately will lead to better living conditions for our population…. [You] have won the heart of the community…. In the future we may have a health and education system that benefits the community.*

Discussion
The evaluation of this international clinical experience provided rich qualitative insight into the experiences of the students, faculty, and community partners. The evaluation suggests that service learning activities provided by the FNP students were effective in meeting course and personal objectives. However, for service learning to be effective it must also meet the needs of the community served. Evaluative comments by the physician representing the YIMC indicated that the needs of the community were met as well. The “drop-in-care” discussed by Levi (2009) was avoided through careful and thoughtful planning within the current health care system as suggested by Crigger and Holcomb (2007).

Even with the programming being implemented within the current structure of the Honduran health care system, the qualitative analysis demonstrated that students still questioned the long-term value of what they contributed. Students shared concerns about whether there could be follow through with referrals when considering the current health care infrastructure. This is similar to a discussion by Igoe (2008). She asks, “How many of the people we helped would remain sick or get worse?” Though all long-term patient needs were not met by the students in during the clinic experience, working with a grassroots capacity building project promoted the eventual ability of the community to meet their own health care needs. The planning and implementation of the project provided multiple challenges. The issue of setting up a two day clinic in a local community in which no health care facilities were available was resolved through the suggestion of community members that a local, easily accessible motel be used. Bringing adequate supplies and medications was made possible through the generous support of a gift from a university donor.

The challenges reported by students in this program are an important area to address for future international programs. Graduate students are more likely than undergraduates to have family with needs to be met while the students are abroad. They are also more likely to be employed professionally and may have more difficulty in modifying work schedules. The mental stress reported by the students may be alleviated
by identifying community resources that the students can tap into prior to the immersion. Community programming may be beneficial and alleviate stress related to childcare and transportation. The reported physical challenges can be addressed for future participants by better preparing them for the physical realities of Honduras. Additional daily downtime during future immersions is also an important consideration.

A primary strength of the program was the opportunity for students to develop clinical practice skills while meeting the needs of the target community. The program was integrated into the established health care system so that continuity of patient care was promoted. Additionally the students had the opportunity to advocate for improvements in local health care services. The Honduran community was an integral part of the planning, implementation and evaluation of the program.

Conclusion

Culturally sensitive health care providers are vital for quality care in today’s ethnically diverse society. Providing international clinical experiences as a component of an FNP program is a strategy that can promote the development of practitioners who are prepared to provide care to patients and their families within our global community.

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