Letter To The Editor

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Providing Hope Amidst Extreme Poverty, Chronic Health Concerns, and Violence: One Medical Team's Experience in Guatemala City

Dear Editor:

With nearly 18 million inhabitants, Guatemala has the largest population in Central America. It is also a country where approximately 51% of people live in poverty and the health status of the poor, particularly indigenous Guatemalans, continues to be the worst in the Western hemisphere.[1] Our 8-person medical team, which went to Guatemala City in September 2018, consisted of a physician, an RN, 2 pharmacists, a medical assistant, an occupational therapist, and 2 support workers (Figure 1). We had the privilege of partnering with Life of Hope Ministries as part of a medical team working with Corazon de Amor ("Heart of Love") Clinic, which is located near the gate of the garbage dump/landfill area in Guatemala City, the capital of Guatemala (Figure 2). The clinic not only serves the people living on the periphery of Central America's largest and most toxic garbage dump but also has outreach clinics in the surrounding zones of the city, including the ghetto of La Limonada, considered one of the city's red zones. Red zones are areas with exceptionally high crime rates, typically controlled by gangs, where even local police don't often enter. Life of Hope Ministries exists to help reach the children and families living in "at risk" or street situations; they partner with local organizations to provide services to improve the lives of those in need and share the love of Christ.[2]

The Clinic

The Corazon de Amor Clinic began as a dream of Dr Layla Perez, who grew up in the garbage dump area in Guatemala City. This area is home to approximately 30,000 people who have built shacks on a thin layer of soil over what used to be part of the landfill. She wanted to provide medical care and improve social situations, as well as build hope for a future. On our first day "Dr. Layla" took us on a walking tour of the community, which was a sensory experience as the pungent odor of garbage, smoke, and methane gas filled the air and the tin homes, drying clothes, and piles of recycled garbage filled our view. Recognizing the importance of holistic care, the clinic works with Cristo es El Camino church to provide educational programs, including a community center with a computer lab and a school, which lead to better job opportunities. They also offer feeding programs that have a significant impact: Guatemala has the fourth highest rate of chronic malnutrition in the world.[3] Fifty percent of Guatemalan children younger than 5 years experience malnutrition, which can result in stunted growth and brain development and decreased immunity. In addition, the complex issues of substance abuse, homelessness, and domestic violence and the psychosocial impact of trauma create health concerns that the clinic and other ministry partners address on a routine basis.

Violence is a part of life to the people in the clinic's service area. Our occupational therapist made home visits during the week: when in La Limonada, 7 of the 8 visits were patients with injuries from gunshot wounds. Gang violence is common; many patients shared stories of losing multiple loved ones to murder or cross-fire deaths. Human trafficking and domestic violence are pervasive challenges as well. There are limited resources for counseling, but the clinic is working to try to meet this important aspect of quality care for their patients and the community.

The Iron Triangle of Health Care

In the United States we often talk about the Iron Triangle of health care: cost, quality, and access. All 3 are challenges in Guatemala. Effective prevention is essentially nonexistent. Diabetes and high blood pressure are 2 of the most common chronic health problems of this patient population; both have significant consequences if not managed well, and access to medications is key to effective management. Most families subsist on a diet that is primarily carbohydrates: black beans and rice, with bread or tortillas. Occasionally eggs provide some protein, but many families cannot even afford these basic foods. The feeding programs try to provide meals to as many people as possible—currently about 56,000/meals per year. Almost all the people we encountered had financial and social barriers to meeting even these basic needs, making effective chronic disease management overwhelmingly difficult.

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FIGURE 1

Our team at the seminary gate. Front (left to right): Carissa Virtue, Anna Martin, Ashley Worthy, and Dr Ernest Emmerton. Back: Program Director Devin Chance, Justin Virtue, Stella Falconer, Ceci Austin, and Sean Falconer.

FIGURE 2

The view from the Clinic of the neighborhood of La Limonada. Built on the hillside, raw sewage flows through the stream at the base of the ravine.

FIGURE 3

The team walking to our clinic site in Esquintla (Devin Chance, Carissa Virtue, Justin Virtue, Anna Martin, Sean Falconer, Ceci Austin, Stella Falconer, and David Suazo). We were unable to drive closer because of road damage from the recent volcanic eruption.

There are public hospitals, which are free, but many people do not go because the quality of care they receive is compromised by the lack of adequate staff and supplies.[4] The son of one of our translators was a physician; he had just finished his 4-hour shift manually ventilating an intubated patient in the ICU because the hospital did not have any ventilators. It is routine that residents and interns rotate shifts to keep these patients alive. Ambulances often do not respond to some areas of the city because of safety concerns, and the supplies they carry are very limited.

Some of the team joined Dr Layla for a home visit to examine a new patient and discuss treatment options after an initial visit by our occupational therapist. Dr Layla often hears about acute illness via word-of-mouth referrals, and people walk into the clinic with emergencies as well. Among other recommendations, the patient came to the clinic for cleansing and debridement of a facial lesion. Even basic follow-up instructions were complicated because there was

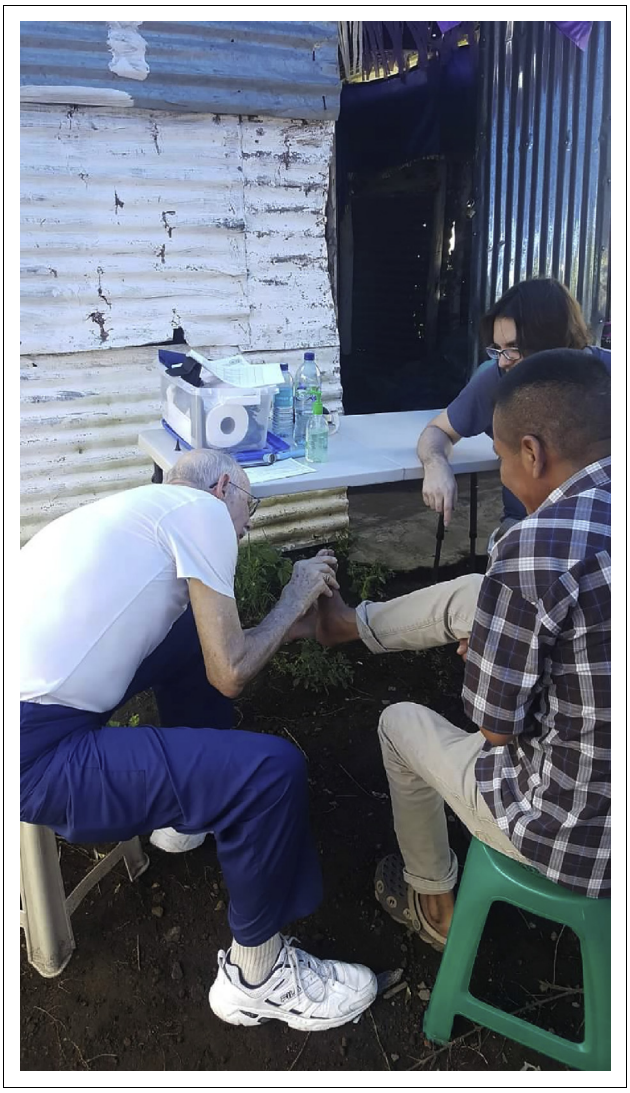

FIGURE 4

Dr Ernest Emmerton examines a patient in his treatment area in Esquintla with the help of translator David Suazo.

not clean water available to simply "use soap and water" to clean her wound; a bottle of saline solution and a syringe were sent home with her to prevent the risk of further complications.

On our last day with the clinic team, we drove outside the city to a new rural clinic site in Esquintla (Figures 3 and 4). Only 100 people lived there after recent volcanic eruption that devastated the area. Of those 100 people, 64 were younger than 13 years. We saw 70 residents in our clinic—an open area covered with tarps and a small tin structure that was a local church. As in the city, diabetes and hypertension were still significantly high, but greater percentages were treated with oral diabetic agents, likely because the ability to monitor blood sugar levels was limited. Waterborne illness was more prevalent. This was only the second visit to this location; Dr Layla explained that her goal was to establish a regular clinic there, visiting them once a month.

Medications: An Essential Part of Disease Management

It is broadly known that limited access to medications has a significant negative impact on health outcomes.[5-8] In the United States, the reality of high prescription drug costs, patient proximity to clinics, and the continual decline of availability of primary care physicians are just some of the contributing factors that inhibit patients from receiving the care required to manage their health.[5-9] If these are issues that have contributed to a health crisis in America, it is easy to imagine the impact these issues may create on health care availability for those living in the city zones near the Guatemala City landfill. Many of these people make a living primarily by collecting recyclables from the landfill. This work provides no income stability or health care benefits of any kind. With limited availability of health care and declining availability of effective government-provided health care, many citizens are left to fend for themselves.[1,10]

These issues have direct relevance to the constraints faced in Guatemala City. How are you to manage diabetes when you have no way to check blood sugar, have no access to any medications, and do not have the knowledge of carbohydrate-consistent diet practices or the financial means to be able to change your diet? An insulin-dependent patient was brought in whose blood sugar level was higher than 600. His last weekly sugar check was "fine." He was treated with subcutaneous insulin and left several hours later with a bag of insulin, syringes, and instructions on diet management. He was told to return for a blood sugar check the following week. His story was far too common. This is where clinics like Corazon De Amor become an invaluable resource. Persons with juvenile diabetes are provided with Glucometers and test strips, but insulin-dependent adult diabetics depend on going to the clinic for their weekly glucose check because of the limited supply and relatively high cost of these supplies.

The Corazon De Amor clinic, and others like it, take what little resources they have and attempt to help as many people as possible. The cost of obtaining medication and maintaining stock is highly variable, which impacts prescribing practices: 2 examples are gabapentin and

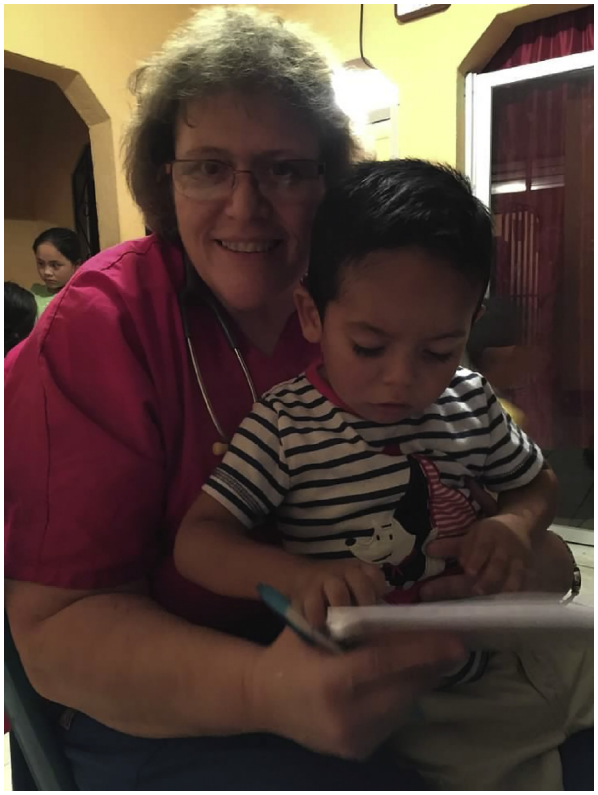

FIGURE 5

Stella Falconer entertains the little brother of a patient who is getting a nebulizer treatment nearby while at the satellite clinic in Santa Faz.

multivitamins. According to staff of the Corazon De Amor clinic, the cost to purchase gabapentin in Guatemala was approximately 3 times higher than the wholesale cost paid in the United States when supplying medications for this trip. Because of this situation, gabapentin is prescribed at the clinic only for persons with severe neuropathy. To extend the supply, the medication is only dosed at bedtime. Multivitamins also are more expensive; therefore, they are only dispensed as 20 tablets for a 30-day supply to those at high risk for vitamin and mineral deficiency complications (ie, pregnant patients and children showing signs of malnourishment).

The clinic typically has only 2 RNs. One checks in patients, determines chief complaints, obtains vital signs, and assists the physician as needed, for example, obtaining pregnancy ultrasounds. The second RN staffs the pharmacy/dispensary, provides injections and nebulizer treatments, fills all prescriptions, and educates patients about their medications (Figure 5). Patient education is imperative in this population because although the directions are provided in written Spanish, many patients are illiterate; their only chance at successfully managing their disease state relies entirely on the verbal instructions provided by clinic staff. They also try to reinforce other diagnosis-specific education and any symptoms that would be reason to return to the clinic.

One common method of cost containment in the United States is use of a drug formulary. However, because the clinic is dependent primarily on donations, formulary management is nearly impossible, as each volunteer group that arrives brings different medications and supplies. This task becomes increasingly difficult because each satellite clinic has its own pharmacy/dispensary and medication storage. Each of these locations requires medications to be restocked from the main campus; packing available medications into plastic tubs and luggage cases prior to each clinic day is a bit of an educated guessing game. Even with optimal preparation, medications often run out and must be substituted on a case by case basis. This is where the quality of the professional relationship between the nurse and the primary physician is of paramount importance in keeping the clinic running smoothly. The nurse often accurately predicted what medications to pack for a specific location and substituted available medications for those prescribed seamlessly. It is worth noting that the primary physician expected and encouraged the nurse to substitute with an alternative option when necessary. Although vastly different from pharmacy practice in the United States, it was refreshing to witness such close collaboration to provide health care to their patients.

Conclusion

A recurrent theme during the week was hope. The Corazon de Amor Clinic strives to instill hope to those they serve, and Life of Hope Ministries partners with the clinic and other organizations in the community to reach people and empower them to improve their education, obtain vocational skills, and break the cycle of drugs and violence that is pervasive in their community. As a medical team we served alongside the clinic staff to help them treat a greater number of people in the community, and while doing so, provide them hope and encouragement. Their stamina amid the barriers they face and their holistic approach to health care was inspirational and provided an education for our team that you cannot find in any textbook. It was a joy and a privilege to serve with these amazing individuals and show the love of Christ to the people of Guatemala.—*Stella S. Falconer, RN, BSN, MHA, CEN, CPEN, Member Ozark Chapter*

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