An African experience: my medical rotation in Swaziland

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As a medicine intern from Baylor University Medical Center in Dallas, I made the long journey across the Atlantic to Swaziland, Africa, in November 2001.

Dr. Aby Philip, the director of the Good Shepherd Hospital, sent notice to many US medical schools requesting the help of residents and other medical personnel in Siteki, Swaziland. While in my fourth year of medical school, I set up an elective to work at the Good Shepherd Hospital the following year.

Preparation for the trip began months in advance. I received many appreciated donations of medicine and medical supplies from Baylor, local doctors, and drug companies. I consolidated the sample medications, since they usually come one pill per box, and packed them with the other supplies into a very large suitcase. I packed all of my other belongings needed for the month-long journey into one suitcase and a backpack. I made sure to pack several vital things, including books on tropical medicine and dermatology, lots of no-water-needed hand sanitizer, trinkets for the children, several novels, and an economy pack of granola bars and animal crackers. Other residents who had been to Siteki informed me that entertainment in the African bush was scarce and the food was not too appealing; therefore, I was coming prepared.

November 1 came, and I was off to Swaziland. Given the recent events of September 11, I was hesitant to fly across the Atlantic by myself; however, I knew this was something I was meant to do. I wheeled my 60- and 80-lb suitcases to the airport, and I was ready to go after rearranging animal crackers and books to meet the 70-lb baggage limit. After an 11-hour flight to London and a 12-hour flight to Johannesburg, I was finally in Africa. The flights went smoothly, and I had no traumatic events until the Johannesburg airport bus stopped in front of my next flight, the Airlink Swaziland 20-passenger propeller plane. I said a quick prayer and got on the "plane." The trip to Manzini, Swaziland, was thankfully uneventful—until I tried to pass through customs.

As I innocently opened the 70-lb suitcase full of drugs, the customs agent looked at me like this was the perfect time for her to feel the power that was given to her by the Swaziland government. She asked me, "Where is your invoice?" I handed her an itemized summary of everything I was bringing. That was all I had since the Good Shepherd Hospital told me it would be sufficient. She looked at me once again and said, "No! No! Where is your invoice? I need proof of purchase for each one of these items." Since none of these items had been purchased and I was

Figure 1. Good Shepherd Hospital, Swaziland, Africa.

in the middle of nowhere, I was not sure how I was going to provide an "invoice." Thankfully, seconds later the driver from the hospital saw me having difficulty with the customs officer and came to my aid. After calling Dr. Philip and having him speak to the customs agent, I was allowed through. Later, Dr. Philip informed me that it was never a problem to bring hospital donations through customs, and he convinced the agent to let me through by asking her, "Do you really want to withhold medication that could help so many people at the Good Shepherd Hospital? Someday even you may need some of this medication."

I followed the Good Shepherd driver to the truck, put my suitcases in the back, and tried to get in on the driver's side—forgetting that Swaziland was once a British protectorate and people drive on the opposite side. We finally left Manzini, the capital of Swaziland, and drove toward our destination—Siteki, a small village in eastern Swaziland near the Mozambique border.

Good Shepherd Hospital was situated about 5 miles south of Siteki. As we drove through town, I appreciated how far away I really was from the world to which I was accustomed.

Several small adobe houses where nurses, physicians, and their families lived surrounded the 150-bed hospital (Figure 1).

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Figure 2. Area surrounding Good Shepherd Hospital.

Figure 3. My home in Swaziland, Africa.

Children happily entertained themselves outside with games that required nothing but each other. Thick green vegetation and hand-plowed fields on rolling hills and mountains encapsulated the hospital grounds (*Figure 2*). Dr. Philip and his wife greeted me, and after feeding me a home-cooked meal, they showed me to my new home (*Figure 3*).

After going on several mission trips to developing countries where all I had was a backpack, a tent, and medical supplies, I was very impressed with the accommodations. I shared a small house with a Dutch medical student named Ellen. We had all the amenities we needed, including running water, a shower, 2 beds, a living room, and a kitchen. The day after I arrived, I started my work in the hospital.

I was given a tour of the hospital by an English doctor, Gillian, who had just finished her internship in London and was working 6 months at Good Shepherd. We entered through the emergency room, which consisted mainly of 2 stretchers with a curtain divider, sterile equipment, and various injectable medications (*Figure 4*). The windows were open for fresh air, and curious passersby peered through to see what excitement lay inside. She informed me that this was where all emergency procedures would be done.

We exited the emergency room and found ourselves in the outpatient clinic waiting area, which was surrounded by several rooms where x-rays, simple laboratory tests, and ultrasounds were done. The patients waited in line on wooden benches, sometimes for up to 4 hours, without complaints. Gillian showed me the office where I would be working, which consisted of 2 desks, sev-

Figure 4. The Good Shepherd Hospital emergency room.

Figure 5. With the "healthy" children of the pediatric ward.

eral chairs, an exam table with a privacy curtain, and supplies. I would be sharing the office with her and Dr. Kambale, an obstetrician/gynecologist from the Congo. She then guided me to the pediatric ward, where I would be going on rounds every morning.

Gillian guided me down the hospital's main hallway and explained that the large open wards on either side were designated for women, men, children, and obstetrics. Each ward room consisted of 8 beds, which were never vacant, and sleeping mats between each bed where the overflow patients could stay. We entered one pediatric ward room that was filled to capacity. Patients were anxiously awaiting morning rounds on their designated bed or mat, usually with their mothers and young siblings. Gillian explained that each morning we would see 25 to 30 pediatric inpatients, examine them, prescribe needed medications, and follow up on any laboratory work or x-rays. Since the hospital was always filled over capacity, it was important to discharge patients as soon as they could be treated as outpatients. We would share one nurse who could translate from English to siSwati and help with anything else we needed.

We then went next door to a room where the children appeared to be quite healthy. These children were cheerfully sitting around a small table and were eating breakfast. This was the room where older children stayed if they had no parent with them in the hospital, if they needed long-term inpatient treatment for an illness such as tuberculosis, or if they had been discharged and no family member had been able to pick them up yet. These children were very outgoing, loved attention, and bonded with

Figure 6. Patient with severe ascites.

Figure 7. Child with severe burns.

many of the young visiting doctors. We enjoyed teaching them to sing English songs, play new games, and brush their teeth (*Figure 5*).

The next stop on my hospital tour included the obstetric ward and neonatal unit. We entered a small heated room that contained 2 incubator units and several open bassinets. The tiny diaperless babies were sleeping soundly. Most were well nourished and breastfed by their dedicated mothers who lived together in the room next door until their babies were strong enough to go home. Two of the little ones were not so fortunate. One baby girl was named Gunille (meaning “the last one” in siSwati) by her extended family. Her mother died during premature childbirth, and Gunille was waiting to be healthy enough to go home with her relatives.

Another baby girl, whose mother died of tuberculosis shortly after her birth, had an unpredictable future. She had no relatives to claim her, and she would remain nameless in the hospital until a home was found or she was old enough for an orphanage. This little girl represented thousands of children in Africa who were orphaned because their parents and family members died of AIDS-related illnesses. Their lives are difficult, and their fate is unknown. There are few reputable orphanages in Africa, and families who are willing and able to adopt another child are almost nonexistent. As long as this little girl could survive the exposure to her mother’s many illnesses, the hospital would undoubtedly be her home for the next few years.

Life in the neonatal unit without a mother was hard. The overworked nurses rarely had time to feed the babies on schedule or change their wet and soiled sheets. Many of the volunteer doctors and nurses enjoyed feeding and caring for these 2

babies, and when my month in Swaziland was complete, the babies had been fattened up nicely.

As I got into the routine of making rounds on my pediatric patients in the morning and then heading to the crowded outpatient clinic, I met many amazing, strong, and proud people. The most amazing woman I met presented to another internal medicine doctor in the outpatient clinic. The patients were quickly piling up in the waiting room, so he asked if I could drain some of her ascites. He told me it was “pretty bad” and to just “try to make her feel a little better.” The African doctors are never surprised by anything, and I knew she had a real problem when he said this. I went to the emergency room to do the procedure, and what I saw made me gasp (*Figure 6*). The 67-year-old Swazi woman told me she was “having trouble peeing.” I was again shocked that this was her main complaint while she was sitting there with at least 20 L of fluid on her belly. Her family explained that she had had this problem for a long time, and she came periodically to get the fluid drained. They had not been able to come lately because they had to take 3 different buses for several hours to get to the hospital, and she was no longer able to get around. After I questioned the patient further, she also admitted she had been sitting in that same wheelchair for 3 weeks because she could not breathe or move well. After I drained nearly 12 L of fluid using intravenous catheters and urine bags, the patient was very grateful and couldn’t believe how well she could breathe. Like most Swazi people, she was happy with whatever we could do to help her.

During rounds in the pediatric wards, I met several patients whom I will never forget. As I walked by one young boy, I noticed he was lying in an awkward position and looked very un-

Figure 8. Child with kwashiorkor.

Figure 9. Child with tuberculosis and malnutrition.

Figure 10. Child with complications of AIDS.

comfortable. I asked the nurse what happened to him, and she explained that he “sat on a furnace” at home. He had been in the hospital for several months trying to recover from the burns on his buttocks. The small child stood up so the nurse could care for his wounds, and what I saw astonished me (*Figure 7*). His thin shaking legs held up his raw buttocks and lower back. She remarked that the wounds were not healing well because the hospital did not have a pediatric Foley catheter for him, and it was difficult to keep the wounds clean because of their location. The circumstances surrounding the infliction of his wounds at home were never investigated, and the brave child was remarkably in good spirits when I saw him every day.

Malnutrition was a common yet frustrating problem. One of my first patients came in with kwashiorkor, or protein malnutrition. He was a small 3-year-old child in the pediatric ward with his grandmother, who was desperately trying to keep the flies away from his open wounds. He had no hair, a swollen face, edematous limbs, a large skull with frontal bossing, and peeling skin (*Figure 8*). We did our best to treat his infections and force him to drink baby formula or “egg flip,” a high-protein egg drink they made in the hospital. The child would take sips of these drinks, but he never took in enough to bring him out of his extremely poor nutritional status. I felt helpless with this child, and I went to round every day worried to see his bed empty when I arrived. He was still hanging on when I left Swaziland; however, I believe his recovery was beyond the scope of the resources available at the hospital.

The pediatric ward always had several other children with malnutrition. Although kwashiorkor was very prevalent, several children also presented with marasmus, or total-calorie malnutrition. These children were easy to tell apart. The swollen children with inappropriately large bellies usually had kwashiorkor, and the children who were all skin and bones had marasmus. The lines were sometimes blurred, and some presented with signs of both.

The worst case of total-calorie malnutrition was a child whose mother had recently died of AIDS. The grandmother brought in this child and wanted us to “help his cough” (*Figure 9*). We could see there was much more to fix than his cough. The child ended up having tuberculosis and AIDS, which alone could cause his malnutrition. However, after his mother died, there was no one to breastfeed him, and the grandmother could not afford formula. This poor child had no chance by the time he was brought to the hospital. He died the next day despite our efforts to treat him. AIDS frequently contributed to the deaths of many of my pediatric patients in Swaziland.

Another child who was brought in by her grandmother also lost her parents to AIDS. Although the grandmother kept the child well nourished, she could not protect her from the overwhelming infections to which she was now susceptible. The baby girl had a high fever, thick oral thrush, and what appeared to be staphylococcal scalded-skin syndrome (*Figure 10*). We attempted to treat her with intravenous antibiotics; however, she was gone when I arrived the next morning. The nurses informed me that she did not make it through the night.

For every child we lost, there were many children who beat the odds. One mother brought in her baby boy because he had a cough and was looking “pale.” After checking his hemoglobin and chest x-ray (two of the few tests to which we had access), we realized the child had pneumonia and sickle cell disease. Since the threshold for blood transfusion at the hospital was a hemoglobin of 4 g/dL, this child was able to receive 1 unit. He was stuck by the nurses several times; however, they could not put in an intravenous line. Gillian informed me that we would have to perform a venous cutdown in the operating room. Although neither of us had done one on our own, the surgeon asked us to try since he was busy the rest of the day. Although it was like the blind leading the blind, we were finally successful. The child received several units of blood and intravenous antibiotics be-

Figure 11. Healthy child in the outpatient clinic.

fore he finally recovered. At the end of his hospital stay, his mother propped him up in the bed so he would be ready to see us during rounds.

I came across many healthy children while in the outpatient clinic. Some were just lucky, but some had families that were able to take good care of them. One little girl was the spitting image of health and was dressed up to come for her well-child visit at the clinic (*Figure 11*).

For every child affected by AIDS, there were many more adults. An estimated 75% of the adults seen at Good Shepherd Hospital had HIV, and Swaziland is thought to have the second highest prevalence of adult HIV in the world, second only to Botswana. Since HIV medications were too expensive and hard to find in Swaziland, the outward manifestations of AIDS were everywhere. The most notable of these was Kaposi's sarcoma (KS).

The presentation of KS was variable, yet it was easily recognizable in the HIV patients. One young man was covered in purple plaques and nodules from head to toe (*Figure 12*). He had lymphedema of his extremities, face, and scrotum that reflected the extensive involvement of his KS, and he died the day after I visited with him. Another lady presented with facial swelling (*Figure 13*) and reported no other medical problems. When I asked her about the large purple plaques on her face, she said she

Figure 12. Critically ill man with Kaposi's sarcoma.

Figure 13. Kaposi's sarcoma of the face.

had not noticed them and wanted me to "just help the swelling." She was later found to be HIV positive. Some presented with multiple skin-colored nodules, and others had only oral mucous membrane involvement. KS was sometimes the first manifestation of HIV and sometimes the last. All patients with suspicious lesions were sent for HIV testing and counseling at the hospital.

Patients in Swaziland who tested HIV positive would not get antiretroviral medications; however, they could receive antibiotic prophylaxis and/or treatment for opportunistic infections. Tuberculosis was an infection common among HIV patients, and sputum and chest x-rays were routinely checked for acid-fast bacilli when patients presented with symptoms. One patient presented with a small infiltrate in the right lung; when he re-

Figure 14. Necrotic “bed sore” in an HIV patient.

turned 1 month later with his acid-fast bacilli–positive sputum samples, his chest x-ray showed a large cavitory lesion. Patients who tested positive for tuberculosis were treated in the hospital for several months and then sent home with treatment through directly observed therapy. Although the programs in Swaziland attempted to control tuberculosis, most patients did not present for treatment until the disease was fulminant and many people had been exposed. Patients with problems other than tuberculosis also presented when their disease had progressed beyond a treatable stage.

Another visiting doctor knew about my interest in dermatology and explained that she had a patient with a “pretty bad bed sore.” She pointed me in the direction of her patient, and I went to take a look. As I took the bandages off the patient’s buttocks, a large circular, necrotic section of skin fell into my hand, and the tissue below followed like an accordion (*Figure 14*). She had been bedridden from HIV-associated illnesses and “did not know how it got so bad.” The following day her wound was debrided; however, to my surprise the procedure was done outdoors

because the physician said the wound was “too contaminated.” I did not even try to understand that one.

Not only would I run into astonishing illnesses in the inpatient unit, but people would also stroll into the outpatient clinic with problems that had progressed far beyond belief. When a man came into my outpatient examination room wearing a burlap skirt held together with safety pins, I knew there was a major problem. As he removed his clothing, he showed me multiple areas in his groin and buttocks where yellow pus was draining out of large fistulous tracks. He was also an AIDS patient and reported he had been told that he had an “infectious pocket” under his skin; we were now seeing the effects after this “pocket” had ruptured.

I had an excellent experience in beautiful Africa, and I will take every opportunity to serve those without medical care in third world countries. The amazing variety of diseases allowed me to learn from the patients while they got the care they needed. The laboratory tests and imaging studies were limited, and good old-fashioned medicine was the primary resource. The importance of learning about a patient’s problem through one-on-one personal contact became apparent.

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