2006

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Degree Type
Open Access Senior Honors Thesis

Department
Nursing

Keywords
Medical care Africa, Pain Nursing

Subject Categories
Nursing

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Observations on Healthcare and the Cultural Perceptions of Pain and Pain Management at Bebalem Hospital, Tchad, Africa

By

Nealey McCall Hearns

Senior Thesis Submitted to the

Eastern Michigan University

Honors College

in Partial Fulfillment of the Requirements for Graduation

with Honors in Nursing

Approved at Ypsilanti, Michigan, on this date___________

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Honors Director
“La Fille”

Observations on Healthcare and the Cultural Perceptions of Pain and Pain Management at Bebalem Hospital, Tchad, Africa

Nealey M. Hearns
EMU Nursing

1. “la Fille”, This is a phrase of greeting in the tribal language of Gambi, and it is the equivalent of saying in an exact translation, “many welcomes.”
2. Tchad is located in central Africa.
Statistics

- **Total Population**: 8.1 million
- **In 2003 the prevalence of people living with HIV/AIDS was 300/1000**
- **Number of physicians per 1000 people is 3**
- **Major disease problems in Tchad are Cholera and Meningitis**
- **Average Life expectancy is 40 years old**

Not only are these statistics staggering, but another infection and disease process that was very prevalent is the parasitic infection called schistosomiasis. This parasitic infection was something that was commonly seen in the region of the Bebalem hospital, and was a common infection treated. This infection can have a devastating sequela. The pathophysiology of this disease will be discussed in later slides.
Capital city N'djamena
However, I did not spend my time here, where the majority of medical personnel already are housed. I flew from the capital city to the very remote city of Bebalem, where the hospital is only staffed by one doctor, and is dire need of help and relief. When I was not working at Bebalem Hospital, I was traveling out in bush regions that are very remote. Most of the people in these remote regions where we set up tent clinics had never had medical care before and had never seen a doctor or nurse before.
You had to fly to Bebalem because it is too dangerous to cross the terrain for such a long distance in jeep. Oddly enough the picture you see is fairly southeast, where it is considered tropical, and up to the north it is considered more as desert. I did not notice much of a difference however, and everything looked like broad arid planes to me.
This is an actual picture of Lake Tchad. Unfortunately it is drying up since the country is undergoing a drought. This is a huge concern for the country, since the only other water sources are underground wells. Lake Tchad, although very important to the people is also a cause for concern. The people swim, bathe, and drink from this lake, the same lake that cattle wade in and various other animals, making the water unhealthy and causing medical problems. The most helpful education a medical person can give a Tchadian is to educate about how to have clean, safe drinking water. I spent most of my time trying to teach the nationals about how to keep the water sanitary.
Here is an example of a well. Women work very hard to obtain their water supply, and often women are known to walk as far as 5-8 miles to obtain water.
This is what it looked like when I arrived to Bebalem Hospital. We were greeted by practically all members of the village with much fanfare. We were welcomed with smiles, singing and dancing, and the nationals even called us their, “saviors,” because they were so looking forward to the care that we were about to bring.
This is the hut I lived in for my stay in Bebalem
Too many of you it looks like I’m sticking my hands up trying to be innocent, but the hand motion I am actually doing is giving a traditional Tchadian greeting that essentially means, in its best translation, “many welcomes,” or “I’m bestowing as much welcome on you as I can.”
And finally, here is a picture of Bebalem hospital. The hospital is run by one doctor from Sweden, and is also home of a nursing school for the nationals. The hospital is severely understaffed and under resourced. The hospital contains approximately 100 beds, as well as a 25 bed maternity ward that is always busy. There is not electricity unless a generator is being used, which can be quite costly. There is no running water or refrigeration, which can present a challenge when trying to store antibiotics as well as when trying to scrub sterilely before a surgical procedure.
This is in the morning where I started my typical day getting a list of patients from our head doctor about who I would be taking care of. Typically I would spend one day in the OR, one day in Clinic, and one day on the floor and start the cycle over again. The nursing role is a little different in Tchad. Nurses are viewed much like doctors are viewed. The family is responsible for much of the patient care that normally a nurse would assume. For example, a patients family would stay on hospital grounds, out under the stars, and cook meals that they would bring into the patient to eat. At this time, they would also bathe the patient, and even do simple dressing changes. The nurse is responsible for much more a medical role, determining treatment, and administering and adjusting medications. I tried to teach the nurses in the hospital more about the nursing process used in the United States to see if it would be useful in this setting. Although it was well received, the medical model is considered more useful in this setting by the nationals.
This is part of the 100 bed ward. As you can see there are only a couple of beds that actually have mattresses. It is not uncommon to find a patient lying on one of these beds and have it contain no mattress. The patient may be laying on just the springs of the bed with only a blanket draped over the springs. Also, the ward contains no walls, curtains or dividers. This makes it easy for infection to spread. My observations did not find that the patients minded the lack of privacy, but this area was not fully investigated, and the individuals were not specifically questioned concerning this area. However, the rooms are tiny, cramped, and infection is easily passed from one patient to the other because of the closed quarters with little ventilation.
This is just a contrast to what is seen at one of the hospitals down the road. This bed cost $13,000.00, and is not even considered a specialty bed for skin breakdown. This is the standard bed any American would lay on upon a hospital admission. Nursing is greatly concerned with skin care and the prevention of skin breakdown and pressure ulcers. Pressure ulcers are a battle that nurses are constantly battling against in the United States. Imagine how much more vigilant the nursing staff had to be at Bebalem Hospital when their patients were practically lying on metal springs. Skin breakdown was a huge issue at the hospital of Bebalem, causing an enormity of problems and further infections.
This crowd of people is simply the line for surgery consultation. All of these people think they need surgery, and all of these people want surgery. When you tell someone they do not need surgery they turn away utterly discouraged. This is where I started gathering observations on the people’s perceptions of procedural pain. Ultimately, if the procedure inflicted pain, or was perceived as something painful, the higher probability that a cure would ensue for their current pain or ailment.

What I eventually learned while I was in Tchad was that out of 1,000 people whom I asked the question, “I have a shot or a pill form of this medication, which one do you want?” I found that 100% would answer that they wanted the shot, or the more painful procedure. As I gathered this unique information, I asked nationals to explain why they wanted the shot. To which I would get the answer, “We need a more powerful pain to come and pounce on the pain we have, and kill it.” So, as can be seen, the more painful the medical procedure, the more it was valued as successful in the nationals eyes.
This is a picture of me and another medical student that participated in this medical relief effort. Of course, this was one of the days that I worked in the operating room. The OR averaged 115-118 degrees during the day. The air was stifling, and the heat almost took your breath away. It became very difficult to stay hydrated and to endure work through the heat, and it was not uncommon for one of the medical staff to faint from heat exhaustion. It is estimated that in heat of this intensity the average person sweats one liter of fluid per hour.
This is a picture of the area where surgical scrubbing occurs. Since there is no running water in the hospital, another nurse must use the white cup to pour water over the hands of the one who is scrubbing in for a surgical procedure. The large metal drums in the background are the equivalent to an autoclave, although I do not understand their mechanism of action.
The OR suite looked like this, and is very primitive when compared to operating rooms in the United States. Most of the equipment in this room has been donated by other missionary efforts, and because of these donations, this is perhaps the finest operating room in all of Tchad.
This was one of our first surgical patients, a burn victim, 10 years old. Throughout my stay I say many many burn victims that needed skin graphing and surgical help. Remember, the nationals still cook over fire, and use fire for many household purposes, therefore it is common to see burn victims.

I also want to point to the anesthetic agent being used. For all surgeries ketamine is used. As in the case of this little girl the ketamine is not pushed until the last minute possible. Surgical prep is done while awake because to push the ketamine earlier before the surgeon is ready to cut is considered a waste of a precious drug. Ketamine is an agent usually used for conscious sedation procedures in the United states, such as a colonoscopy, but is not typically used for surgically procedures.
Another burn victim
In a third world country you cannot assume that because you are medically trained you might not need other skills. Well, part of being a nurse in a third world country and part of a medical team means that ingenuity is inevitable. When a surgical procedure needs to be done, and suction is needed when no suction is currently available, something has to be done. The medical team I was on happened to have a former engineer turned doctor as a participant. Therefore, a motorcycle and a suction have a lot in common. Mainly, an engine. Therefore, the medical team spent a whole day tearing apart this motorcycle engine and inventing a suction machine that was needed for the surgical procedure of a prostatectomy. The bottom right picture is the suction that was invented for the time that we were in Tchad.
Suction being used for a prostatectomy
I was able to assist during the surgeries, and in this surgery we were able to use the newly invented suction to successfully remove a cancerous prostate gland.
While I was in Bebalem I made many friends. This is a picture of me with one of the nurses that is a national. This woman was extremely bright and I learned a great deal of knowledge from her. She aspires to be an anesthesiologist, and must go to Cameroon for her education. There is currently a fund for her so she can obtain the money and eventually go to be trained and return to Bebalem to provide this extremely needed service.
This is an example of an IV bottle at Bebalem hospital. It was not uncommon to see these bottles used, rinsed out, and re-used. This of course caused concern about spreading infections, but the resources are limited, and the nationals are forced to re-use equipment that should not be used more than once.
This is simply another day in the OR fighting the heat and trying to remain on your feet because of exhaustion.
In our first three days at Bebalem, our medical team was able to accomplish the above surgeries.

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The above is a picture of the maternity ward, or basically a small room reserved for the mother that is about ready to deliver. Most women labor while at home and only come to the maternity ward when they are minutes away from delivery.
Only 1 in 4 women actually have access to trained assistance during childbirth. This makes maternal mortality one of the highest in the world, at about 827 deaths per 100,000 live births.
This is the room where clinic was held everyday. The goal per day was to see over 100 patients. This goal needed to be accomplished because there was always a line of about 500 people long waiting to be seen. When I worked in the clinic, I used my skills of assessment to triage patients into levels based on acuity.
We often saw mother and baby in the same visit. We treated this woman for a respiratory infection while we treated her small child for a parasitic infection.
This man has tertiary syphilis as well as HIV/AIDS
The large elevation on his foot is known as a Gumma lesion, and is a manifestation of tertiary syphilis. HIV/AIDS is a very prevalent problem as I have already mentioned. Currently 8% of the population is living with HIV/AIDS, compared the the U.S. 0.6% of the population. There are about 29,000 people who are not receiving treatment because of the drugs expense. Unfortunately this man died while we were there because of his severe illnesses.
This man has cataracts. He is also one of the oldest people I saw while I was there. He was in his mid 50’s.
Once again, the average life expectancy in Tchad is 40 years of age, which of course is not very old, especially
compared to the average life expectancy in the US at 77 years of age.
This is a very graphic picture and perhaps one of the most unusual cases I saw. This man’s name is Magow and he has what is called Ameloblastoma. This is a benign tumor of epithelial origin and is infamous for its invasive growth and tendency to recur.

Magow was offered the chance to fly to Cameroon to seek treatment, at which he refused. Too great of a distance, too great of a risk of dying in another country. Cameroon was considered a world away.
Perhaps one of the most devastating things to observe is that of the malnourished child. Above is a child who is severely malnourished. One of the most discouraging aspects of giving care in the clinic was most of the time our medical team could not do anything for those that were malnourished because the hospital and our medical team alike did not have the resources. Famine was striking the land when I was in Tchad, and there simply was no food to give. Many children die because of malnourishment, despite the most valiant parenting efforts and sacrifices made by the parents to try to give their children the nutrition they so desperately need.
This is leprosy. Leprosy is a bacterial infection and multiplies very slowly, usually with an incubation period of about 5 years. Early signs of leprosy include discolored patches on the skin with loss of feeling, plaques and thickening of the dermis. Unlike many believe, leprosy is not highly contagious, and is not transmitted via skin to skin contact, rather it is transmitted via droplets from the nose and mouth during close and frequent contacts with untreated cases. Fortunately, leprosy is totally treatable with multi-drug therapy, and the WHO offers free treatment for all patients in the world. Treatment usually consists of 6 months to a year of multi-drug therapy. We were able to help this patient start drug therapy before the disease became too debilitating.
This educational poster truly captures the essence of the illness of cholera. This poster is encouraging because it shows that there is a national effort to help eradicate infections that occur because of lack of education about sanitary measures. Whenever I was out in the village with free time I tried to gather a group of women around and teach about proper hand washing techniques that they could eventually implement for themselves and their families. Much education is still needed in this area.
Fecal-oral transmissions are a really big problem due to sanitation issues and lack of hand washing. I spent a lot of my time in Tchad teaching about washing hands after using the bathroom. It is a much harder task than you think to go wash your hands after going to the bathroom with water supplies not always being in the same room or area. Above is the nicest bathroom you will find in Tchad. Even in the nicest place, contamination looms everywhere.
Drinking water had to be worked for, and just because we were medical personnel did not mean we escaped the daily hassle of gathering, boiling and filtering our drinking water. However, leading by demonstration seemed to be the most effective teaching technique, and we discovered that the people followed our lead more than they would follow our lectures.
The people in Tchad are very hard workers. They are subsistence farmers and every part of their day is centered around survival. Due to this fact, we saw many people coming into the clinic with osteoarthritis or pain and stiffness in joints. Most women would come in and start pointing to their neck, back, and knees.

Despite the language barrier I knew that these women’s conditions were due to the simple fact that they work hard. We tried to help them implement ways of doing their hard work while simultaneously avoiding undue stress. Like this woman doing laundry, we would encourage her to try to bring her work up to a good working level. Also, the women still cook over fire, so that accounts for a lot of the burns. What is probably cooking in the pots above is manioc, a staple of Tchadians. It is a shrub looking plant that is poisonous unless cooked. Heat destroys the toxicity of the plant and makes it edible. Everyone here may recognize maniac as tapioca
There is not a whole lot we could do about this problem, this is just how the women carry things.
They carry water. Literally this woman is carrying approximately 80lbs on her head.
And… they start it all at a very young age.
Cotton is a major harvest that requires a lot of work, and it is all handpicked
As well as hand loaded onto these shipment trucks
Not all my time in Tchad was work, I found some time to make some new friends and play with these children. We laughed a lot and they liked touching my skin, since I was the first white person any of them had seen. We also enjoyed playing games together. I realized that laughter and fun is something that does not have a cultural boundary. Playing and laughing are an essential part of life, and a part of life that these children do very well. I met some of the most joyous people I have ever met while in Tchad, despite the circumstances that looked so unbearable to me. I learned to love life while in Tchad, and I will never forget the faces that taught me this lesson.
Here’s some more of my friends. Notice this boy in the front has a bad case of Tinea Capita, or ringworm, which I would then tell him to come see us in clinic and he would show up with a bunch of his friends who had the same thing.
And of course I played some soccer, another game and aspect of fun that has no cultural boundary.
Half of my time in Tchad was not spent at the hospital, but out in the bush, or the remote regions. This is how we traveled from Bebalem to the bush dispensaries.
We would sleep out under the star in these mosquito tents that would protect us from the flock of bugs that were sure to be around.
This is what a bush dispensary looked like. Typically dirt floors and usually staffed by one nurse who had been trained at Bebalem Hospital. We would typically seen anywhere from 200-500 people at a single bush dispensary. People would travel great distances, sometimes over 180 kilometers on foot because of news of us being at a certain village.
Line for clinic visits
The exam room and a national who was very proud of his microscope
This was the local pharmacy. Literally all the drugs in front of him was the entire stock of the pharmacy. He was very happy with the drugs we were able to leave for him.
I thought that this was one of the most intriguing pieces of equipment that I saw in Tchad. This is actually a centrifuge. It is used to separate out blood. Just in case you can’t remember what one looks like in the states…
Here is a model made in the early 1990’s and is in the student lab at Eastern Michigan University.
This was at another dispensary in another village where I worked, similar set up to the one before. Traveling could be tiring, but it was always worth the effort.
And, this was my favorite patient that I took care of. She was treated for a parasite infection and I really loved taking care of her. She reminded me of all the life that is present in Tchad. She reminded me of a story that I was told once. I was reminded of this story because I felt like there were so many people to help in Tchad that I never really made an impact. The story goes like this:

There used to be a man who would walk up and down a seashore. He walked the seashore everyday. This specific seashore contained hundreds of thousands of washed up starfish. This man would walk, occasionally bend down and throw one back in the ocean. He would then proceed to walk, and stoop down and throw a few more back in the ocean. A neighbor of this man used to watch him do this every morning. Finally, the neighbor, out of frustration asked, “why do you continue to walk every morning and throw a starfish back into the ocean. You won’t ever make a dent in the vast amount of starfish that wash up. Don’t you see, you don’t make a difference?” To this, the man who walked the beach simply replied. “For the one I threw back in it made a difference.”

And although we saw a lot of illnesses that we could not help, for the ones we were able to help we did, and it made all the difference in the world to them.
References