Special Article

My Volunteer Work as a Midwife in South Sudan

I never knew what a luxurious and extravagant world we live in until December 2011 when I started my first mission for Médecins Sans Frontières (MSF) or Doctors Without Borders. MSF is an international, independent, medical humanitarian organisation that delivers emergency aid to people affected by armed conflict, epidemics, natural disasters, and exclusion from health care. Joining this international humanitarian organisation is an honour, but also a challenge in terms of my ability to live and work in the most rudimentary conditions. My life changed when I arrived in Juba, the capital of South Sudan.

Joining Médecins Sans Frontières

Joining MSF was not an easy process. My friends and family were surprised by my decision. I am not an altruistic person as such, but I believe that midwives are desperately needed in resource-deprived countries. Having been a metropolitan midwife for more than 20 years, I felt that this was a good opportunity to explore the world and to see if my experience and skills could really help people. The selection process for MSF was different from that of the Hospital Authority. As well as a face-to-face interview, I was asked to present a 15-minute report to the interviewers. Before that, I had an hour to prepare and analyse the information given to me. Lastly, four interviewees, including me, gathered together for a group discussion on a mission scenario. We were assessed on communication and our approach to teamwork. Finally, I was recruited as an MSF volunteer worker in October 2011.

Predeparture to South Sudan

I was informed that I was to go to South Sudan for a 4-month mission shortly after being recruited into the MSF pool of field volunteers. Aside from submitting a health certificate to show that I was fit to work for MSF, I needed to complete a series of vaccinations, including those for yellow fever, hepatitis A, rabies, tetanus, diphtheria, meningitis, and Japanese encephalitis. As malaria was endemic in the area, I took Vibramycin daily as malaria prophylaxis. Among the forms that I was asked to complete before departure, I felt most uneasy about the proof-of-life statement. This was a sheet with questions and answers, which I needed to complete in case I was kidnapped. My family members would be able to ask the kidnappers these questions and expect to receive the same answers as on the sheet to prove that I was still alive to give the answers. This is the first time I have had to write all these unusual statements. With the blessings from my friends and family, I started my first mission on 18 December 2011.

Working in South Sudan

Sudan was engaged in a civil war for more than 20 years; 2 million people have been killed and 4 million people have been displaced. South Sudan officially became independent in July 2011. This youngest nation in the world still has major gaps in its health services due to its inaccessibility and lack of qualified staff. The region has historically experienced recurring disease outbreaks, drought, famine, and flooding.

There is no direct flight from Hong Kong to Juba. I transited in Bangkok and took an 8-hour flight to Kenya, from where I took a 2-hour connecting flight to Juba. Viewing the land from the plane, I could not see any high-rise buildings or transport infrastructure. Instead 'tukuls' (huts) were scattered around (Figure 1). I had arranged to stay overnight in the MSF compound and moved to the field on the following day.

It took an hour for an MSF helicopter to fly me to Lankien, a county town in South Sudan. MSF has been working in Lankien since 1983, with a clinic that serves around 127,000 people. There is also a maternity centre with 10 beds. There is one delivery room with a couch used as delivery bed (Figures 2 and 3). The medical and human resources coordinator in the field briefed me on my position as midwife.

Figure 1. The view from the plane, with tukuls scattered around

The roles and responsibilities within each field were clearly delineated. Each field had one project coordinator responsible for all aspects of security in the project or outreach location. The technical logistician took charge of the installation, operation, and maintenance of all security and communication systems. The medical team leader (MTL) ensured the smooth running of the clinic, general wards in the hospital, and the maternity centre. The MTL could be doctor or nurse, and was responsible for planning the on-call roster. Our medical team had three doctors, three nurses, and three midwives. The midwives were responsible for pregnant women of all gestational ages, as well as newborns up to the age of 6 weeks.

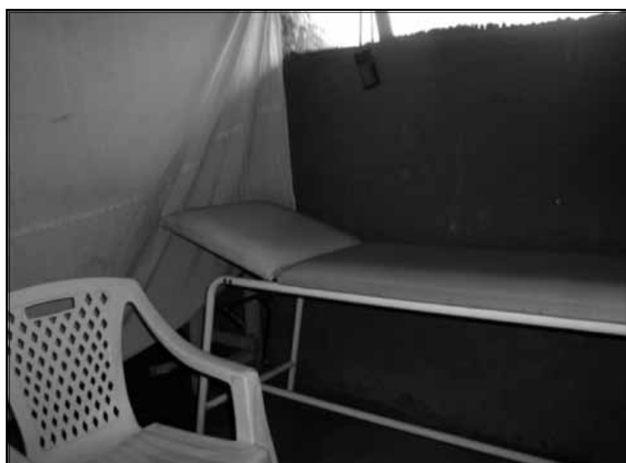

Figure 2. The antenatal clinic

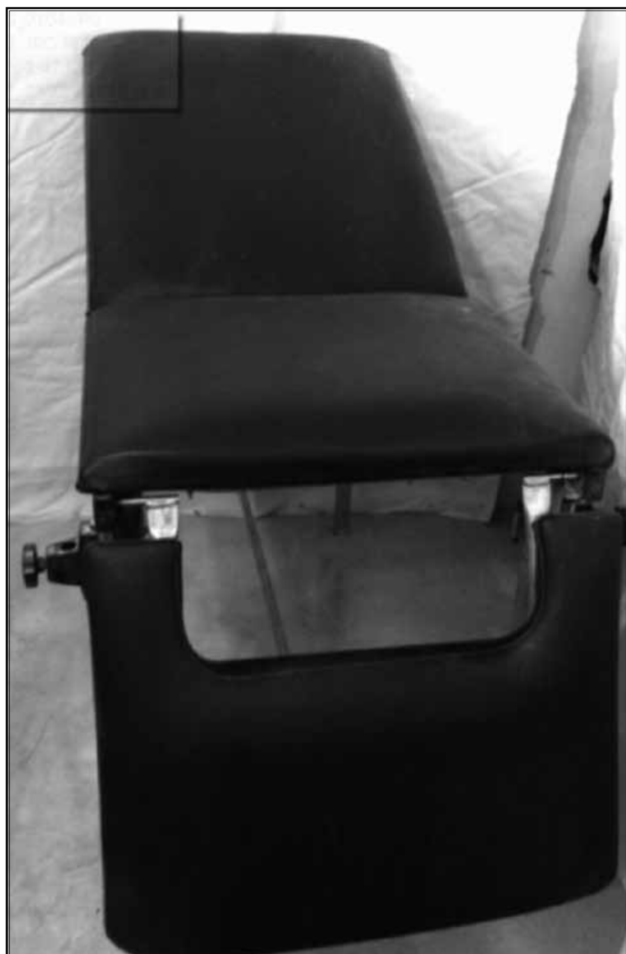

Figure 3. The delivery couch

Security and Safety

Every morning the whole team had a security meeting before work. There is no communication network within the county, so we had to rely on the local staff to provide us with information, which mainly focused on the movements of the army. Violent conflicts and revenge killing were still common, although South Sudan had declared independence a few months previously. The team had to be fully alert of the situation frequently. Our project coordinator would make daily radio contact with Juba. We would rotate the daily radio contact to ensure that all of us were familiar with its use. We were not permitted to speak about money, the military, politics, or security on the radio. The project coordinator had to be informed about anyone going outside the MSF compound, and two people had to go together along with a means of communication.

My Daily Life

I had my ward round soon after the security meeting. The main reasons for a hospital admission were early labour, malaria with complications, or a low-birth-weight baby. After the ward round, I would see patients in the clinic. There was no computer system to capture the numbers of women that attended each day. We had checkup for all the women who came as long as they arrived before 16:00 hours. We would encourage women to have at least four antenatal care visits and one postnatal checkup. There was no transport network in area so the women could only come on foot. Some of them took up to 6 hours to walk from their homes to see the ‘White Doctors’, as they called us. Usually they came alone as their family had to take care of their other children at home. Although we strongly advised the women to come to the hospital for delivery, it was not practical for a woman who was in labour to walk such long distances.

In the afternoon, I would do some administrative work. I had to enter the exact number of drugs dispensed in the logbook. Every week, I would counter-check with another midwife. These medications would then be entered into the computer for subsequent data analysis. I also had to report to and liaise with the logistician to ensure that the equipment and instruments were well maintained. Every

month I prepared the data for admissions, consultations, and births, and entered them into the computer.

Another core responsibility was to teach and supervise the local staff. MSF's ultimate aim is to equip the local staff with the skills to take care of their own people. Every Saturday we had lectures on basic skills for a normal delivery and handling postpartum haemorrhage. We also invited the traditional birth attendants to join the lectures.

Satisfaction and Frustration

We had three midwives in the clinic, so I was on call 2 or 3 times a week. The nature of the job was totally different from that in Hong Kong. In Hong Kong, when I was on duty, I was fully prepared to admit women in emergency situations. However, in South Sudan, I felt pressure whenever the on-call radio bleeped. I had to use a headlight or torch when I was called to see patients at night, as there were no lights to save energy. There were local staff on duty at night and they helped us to translate the local language. The staff were very nice and were always helpful. Some of the staff were skilled in many procedures such as intravenous insertion, injection, and tube feeding.

The clinic could only afford to do a basic antenatal checkup for every woman. Grand multiparous women were very common, and many of them had given birth to their first children as teenagers. The neonatal mortality here is the highest in the world constituting about 364 per 1000 live births in 2011. Child deaths were also common, either due to malnutrition or inter-tribal fighting. There was no ultrasound in Lankien, and I had to work within these limitations. However, I was still able to correctly diagnose a twin pregnancy and a breech presentation. This was the first time I had to carry out a breech birth by myself. I had learned the breech delivery mechanism in my training, and at that moment I was able to put it into practice. I made an episiotomy for the woman, although this was the only one I did among the 14 deliveries at the clinic. The baby boy was born healthy.

Without ultrasound, my alertness was higher and my hands seemed to be more sensitive. A woman was admitted in early labour and her uterus was apparently bigger than the dates would indicate. Two fetal heart sounds were audible at the same time at different rates. Upon palpation, both fetuses were cephalic presentation. The woman delivered the babies 2 hours later with the help of another midwife. We were excited, as the delivery was very smooth; one twin followed the other after amniotomy was done for the second twin (Figures 4 and 5). The two boys weighed 2.15 kg and 1.5 kg. Our excitement soon faded as the bigger twin started grunting soon after birth. We consulted the doctor, but there was nothing we could do except to provide the baby with oxygen through a face mask. There was no resuscitation equipment available except the bag and mask ventilator. The poor boy had to fight to stay alive. Unfortunately, he died that evening. His mother held him all along and tearfully gave him a last kiss. The other small twin stayed in the hospital under my care. I taught the mother how to breastfeed her little boy. I taught her how to express the milk and feed the baby by syringe as his small mouth was not able to grasp the relatively large areola. He gained weight steadily and had reached 2 kg 6 weeks later when I left the clinic. The mother was so grateful and she taught me one African word daily as a reward. I trained the local staff to continue the supervision and monitor the feeding. I hope this small boy survived.

As in Hong Kong, we had busy days here also. I assisted with the delivery of three babies within an

Figure 4. Twins delivered vaginally. The bigger twin died on the same day

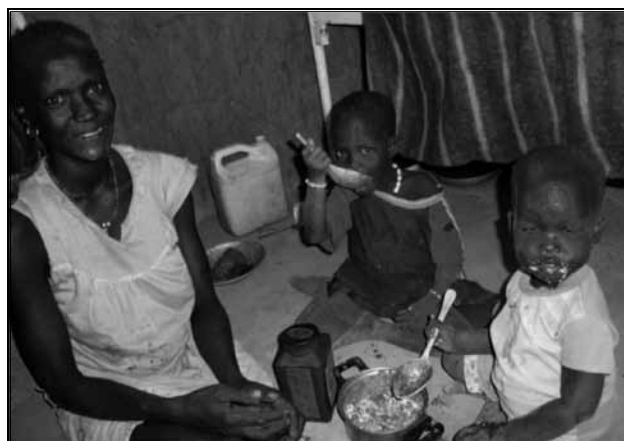

Figure 5. The mother of the twins with her elder children

hour! Many thanks go to the local staff for the rendered assistance, everything went smoothly. When I was on my way back to compound for a late lunch, four men dragged a woman inside my clinic. She was naked, dusty, her body had an offensive smell and was wrapped in a blanket. Her mental state was drowsy and she had severe hypotension and pyrexia. She had delivered at home a week previously and apparently had retained placenta according to the information provided by her husband through the interpreter. Clinically, her condition was compatible with septic shock. According to the protocol of MSF, I gave fluid resuscitation and antibiotic loading before the arrival of the doctor. A speculum examination was done and there was no bleeding. Neither the cord nor the placenta was seen.

We urgently contacted another centre and transferred her immediately to Nazir where surgery was available. Manual removal of placenta was done. One week later, she had fully recovered and was transferred back to our clinic by helicopter. She and her husband thanked me. The happiness and satisfaction I found in the work made life a beautiful miracle. I will never have this authorisation or autonomy in Hong Kong, but in South Sudan, I helped to save a life.

At the clinic what we could do was limited. I admitted one newborn baby who had been delivered at home a week previously. The poor boy had spina bifida and had developed a large sore over his buttocks (Figure 6). Both of his legs were deformed. Unfortunately, we did not have access to surgical treatment for spinal bifida. The MTL took photographs and sent the pictures to other centres in the hope that surgery was possible elsewhere. Without operation, his chance of survival was very low. In the interim, I could only offer conservative treatment to minimise the infection risk.

Four weeks later, I was transferred to another centre where surgery was available. We had an old-model ultrasound scanner of a type that is no longer used in Hong Kong. However, it was very useful in South Sudan. One early morning, a woman in prolonged labour was diagnosed with fetal bradycardia by intermittent auscultation. We did not have electronic continuous fetal monitoring in the hospital. I used the ultrasound to confirm that the fetus was still alive, but with a heart rate of 60 beats/min. Here, it was the midwife who requested a Caesarean section and the surgeon would come and help. Thanks to our excellent anaesthetist and surgeon, both the anaesthesia and operation went smoothly. The baby was born with thick meconium-stained liquor, but quickly responded to resuscitation. Both mother and baby were fine (Figure 7).

Obstetric fistula has been nearly completely eliminated from advanced industrialised nations. However, it is still a major public health problem in the world's poorest countries. It was my first time to see a colostomy that was an outcome of a destructive delivery. This poor young lady had given birth at home a few months previously. The delivery was assisted by traditional birth attendants. No one knew exactly what they had done to her, but her baby was dead and she had a colostomy raised because of a rectovaginal fistula leading to incontinence of faeces. I was not sure whether the colostomy will be permanent. All I could do for her was to cleanse the stoma. Due to limited resources, we could not afford to change the stoma bag daily. I could only advise her to come back whenever necessary. I saw this young woman once and she did not come back again. I still recall that she looked depressed, disappointed, and lonely. She did not say a word and from the look on her face, she seemed to be telling people that she had no future. Obstetric fistula is highly socially stigmatising, and divorce and separation from the family is likely to occur. This will further worsen poverty

Figure 6. A newborn baby with spina bifida and sore buttocks

Figure 7. Mother with her baby after Caesarean section

and malnutrition. Obstetric fistula, which is classically regarded as an ‘accident of childbirth’, particularly in Africa, has not received the international attention that it deserves, from either a medical or a social standpoint.

Rudimentary Living Conditions, but a Fulfilling Life

South Sudan usually has a very hot climate. Although I actually arrived at the winter period, the temperature reached 47°C at noon. The people, including our team members, live in tukuls (Figure 8). Tukuls are huts that are built of stone, mud, dried grasses, and twigs. Our food was transported by helicopters from Juba every 10 days. Our team had 10 people who shared one bathing area and one latrine, which had no flushing system (Figure 9). Life was harsh, but we all adapted well.

Figure 8. My tukul

Figure 9. Bathing area

It was the first time that I celebrated Christmas, New Year, and Chinese New Year in Africa. Although there was no turkey, Christmas tree, and traditional Chinese food, this was the most meaningful period I had ever had in my life. Each of our team members received a mat from MSF head office as a Christmas gift, and it was so timely and useful to us. We slept better even though there was no electric fan during night; the electricity generator was shut off at night and reserved for emergency hospital use.

I will be Back

‘I am going to join MSF!’ is never a heroic statement. Our real lives of being MSF field workers are challenging, sometimes dangerous, and yet full of joy. Sometimes we heard gun fire and had to hide in the compound where mud walls and cabinets offered protection. I salute the MSF volunteers who have demonstrated exemplary dedication and professionalism in their work. My mission was terminated before schedule due to an accident leading to torn ligaments in my left foot. I owe my team members for their care and tolerance towards me during my injury. In the near future, I hope I can continue with my mission. I am not sure what I can give to MSF, but I am sure of what I can give up for MSF. Humanitarian work is vital and help is urgently needed in other parts of the world.

Chit-Ying LAI MN, MSc, MSc
Department of Obstetrics and Gynaecology, The Chinese University of Hong Kong, Shatin, Hong Kong