From Physical Therapy
to Physiotherapy
in Zambia, Africa
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What I wanted to learn in Zambia!

• Observe **Community Outreach Pediatric Screenings** for orthopedic surgeries and parental training in physio therapy.

• Perform **Community Based Rehabilitation** to train children, families, and communities in physiotherapy interventions to help children with disabilities.

• Observe the fittings and manufacture of **pediatric prosthetics and orthotics**.

• Perform assessments on rare **orthopedic/neurological** cases not commonly found in the United States (osteogenesis imperfecta, club/rocker foot, sickle cell, HIV/AIDS, etc.)
Why Community Outreach and Community Based Rehabilitation?

• Research in Zambia is focusing on community access for individuals with mobility limitations.
  • caregivers complain that bringing the patient to the hospital is hard physically and financially (Chiluba et al. 2017)
  • inaccessibility of education institutions, workplaces and transportation have contributed to reduced participation (Banda-Chalwe et al. 2014)

Performing Community Based Rehabilitation in Chilanga.
Saint John Paul II Orthopaedic Mission Hospital

• Adults are charged for orthopaedic surgeries so that pediatric surgeries can be performed free of charge!
• Bed Capacity = 42 (includes Women’s, Men’s, and Children’s Ward)
• 982 children and families have been served through the Community Outreach Program.
• Physiotherapy department includes approx. 12 physiotherapists, 12 treatment beds, and an exercise gym.
Health care issues unique to the Community Program

• Lack of early diagnosis/treatment (cerebral palsy, club foot, developmental dysplasia of the hip, osteogenesis imperfecta, etc.)

• Lack of resources (physiotherapy clinics, sitting frames, standing frames, orthotics, etc.)

• Inability to use wheelchairs due to various terrains (have to carry children on their backs using chitenge)
Case Study:

• 87 year old Zambian Woman
  • First stroke in 2013 within right temporal/parietal lobe causing left sided hemiparesis
  • Second stroke in September 2017 within left frontal/temporal lobes causing non-fluent global aphasia, right sided neglect, decreased purposeful movements (although left sided strength is not impaired), and decreased arousal.
  • Treatment: increasing arousal for meaningful activities through bed mobility, supported sitting, and standing frame. Progressing towards performing inherent movements such as taking steps or riding a bike.
  • Education: Increasing personal interactions at home rather than having her sit in front of the television. Slow progressions and long-term impairments in chronic stroke. Impairments in understanding and expression mean that activities have to be altered for more innate/meaningful movements.
Cultural Factors

• Medical and Physiotherapy interventions can be too expensive.
  • community based rehabilitation is used to empower the communities to help
    their children with stretching, kneeling, sitting, and standing exercises.

• Parents need to be informed of the mechanisms of injuries for their
  children’s disabilities and taught to facilitate their child’s development.

• Lack of laws within the government protecting individuals with disabilities.
  • A lot of children with disabilities are forced to attend a specialized school
There is constant development in Zambia!

• Transformation to paved roads
• Creation of sidewalks
• Occasional ramp accessible public buildings
• Increase in community awareness is helping to diagnose early cerebral palsy
Most profound clinical experience

• Children from Community Outreach Program are admitted to the hospital for 1 week.
• Most children are diagnosed with Cerebral Palsy and recommended to physiotherapy for assessment and interventions to reach motor milestones.
• We teach the mothers to perform stretching exercises together as a group to help with community support.
• Many children are measured for adaptive equipment to help the mothers to train children in sitting or standing.
Most profound cultural experience

Livingstone, Zambia

I visited one of World’s Seven Wonders Victoria Falls or as Zambian’s call it Mosi-Oa-Tunya.

I went fishing on the Zambezi River and caught a Tiger Fish.

I went shopping at the local market.

I fed and pet Elephants.

And I got engaged!!!!!!!!!!!!!!!!!!!!!!
References
