

Experience of an American Medical Student in a LMIC's Healthcare System

Juliette van Heerden, B.S.
Drexel University College of Medicine

Abstract

The state of healthcare in South Africa is binary, with an exclusive private healthcare system that delivers the highest quality of care, and a public, government-run alternative that provides services to the vast majority of the country. This poster describes and interprets the experience of an American medical student observing and working in trauma care of injured patients in a well-known public hospital: Groote Schuur, in Cape Town, South Africa. Stark differences between resource availability and standard, patient population and respective chief complaints, and hospital and patient culture precipitated a unique experience and learning environment that one could not find in any domestic counterpart. Elements including lack of access to self-capping needles, a paper-based medical records system, lack of hospital bed space, as well as performing basic procedures on injured patients in the open ED waiting room constitute a few examples. Providing an improvement in clinical skills, personal development, and a growing awareness of the impact of social determinants of health on healthcare outcomes, the impact of an international health experience in a LMIC setting reaches beyond pure clinical utility. It may aid to help create a more competent and well-rounded healthcare provider, ultimately leading to a better quality of care provided to patients. The long-term benefits of early global health experiences should be further explored and emphasized to American medical students.

Introduction/Objectives

The ability to experience working in a LMIC hospital setting provides the opportunity to learn from patient experiences and hospital conditions different from the typical American medical training experience.

Three major differences/takeaways were noted from this experience and further expanded upon within this poster:

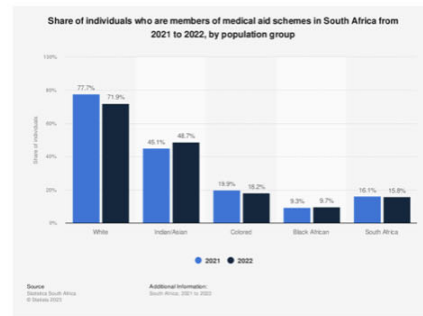
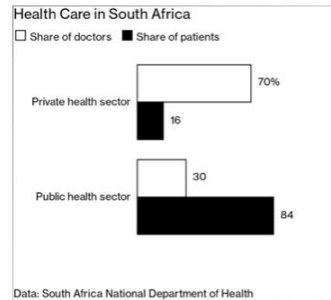
- Patient Population Served
- Hospital Resource and Structural Limitations
- Personal Development in One's Medical Education Journey

Location

Groote Schuur is a government-funded, university-affiliated hospital in Cape Town, Western Cape, South Africa. It is internationally known as the location where the world's first successful heart transplant was conducted by Christiaan Barnard. What was once a legally segregated hospital during Apartheid remains socially segregated, mainly serving black populations due to financial disparity.



Patient Population



A majority of the patients who were in for trauma care were from Western Cape townships, such as Khayelitsha or Guguletu. These are high crime, highly impoverished areas. Government hospitals mainly serve these poorer populations due to the price exclusivity of private hospitals and medical aid schemes. During my two-month stay, among the hundreds of trauma patients I saw, less than 10 individuals identified as white. The most common served patient population was noted to be:

- Vast majority of patients were impoverished and black or mixed race
- Many patients did not speak English
- Low health literacy
- Several lived in shelters without a functioning toilet, computers, cell phones
- Many trauma patients were admitted who were under 25 years of age due to gang violence
- Hospital security closely monitored the outflow of patients (to prevent theft) as well as the inflow of visitors (due to gang targeting in the hospital)
- Inter-personal violence was the main cause of seeking trauma-care

Structural Limitations and Resource Availability

The hospital conditions and resources for both the patients and physicians were noted to lack modernization and abundance in many ways due to funding restrictions, such as:

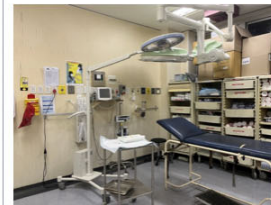
- Lack of patient privacy in wards
- Patient over-crowding in wards
- Tables/trolleys made to be make-shift hospital beds
- Patients having to hold up their own IV-drip bags
- Unmonitored/unsecured TB isolation rooms
- Completely paper-based medical records and system
- Lack of self-capping needles
- Line of patients in the ED waiting to receive a Lodox x-ray from the one machine prior to treatment
- Shortage of nursing staff requires the hiring of transient agency staff that makes inconsistent healthcare teams
- Elective surgeries (i.e. knee replacements) uncommon
- Long wait times (5+) hours for non-life threatening injuries to allow resource allocation for others
 - i.e. patient with screwdriver lodged in eye deemed a non-urgent case who sat in waiting room for hours



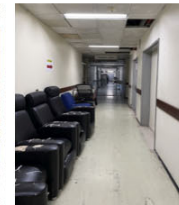
Orthopedic Operating Theater



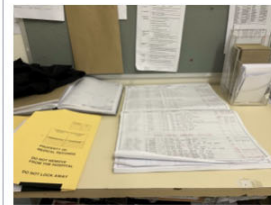
Orthopedic Trauma Ward



EM Procedure Room



Hospital Hallway



Patient Intake & Medical Records



Trauma Doctor Wait Room

Personal Development

From a personal perspective, I learned clinical skills as a first-year medical student that would be reserved for during my third or fourth year, such as sewing GSW's or scrubbing in and assisting in surgery. I gained exposure to conditions and trauma injuries that are uncommon in American hospitals, and learned how to operate in a non-abundant resource setting.

I had to learn how to converse with patients who did not speak English, and quickly become adapted to cultural differences.

This experience will improve my likelihood as a physician to volunteer my efforts in more LMIC healthcare settings.



Conclusions/Future Prospects

The long term impact of an international medical experience on the development of an American medical student should be further explored.

This experience provided an intimate opportunity to learn about the status of a healthcare system different from the United States, as well as serve patient populations with chief complaints that would be very uncommon in a HIC. Working in an environment without a surplus of resources, as well as non-state of the art resources, forces one to be quick-adapting and intentional in providing care.

This experience early in one's medical career may make them more open and willing to serving underserved populations.

Acknowledgements

Thank you to the staff and patients of Groote Schuur hospital for being so welcoming and teaching me so much. Thank you to the Centre for Global Surgery at Stellenbosch University for allowing for and facilitating my experience.