

Needs Assessment in Accident & Emergency and Physical Medicine at Komfo Anokye Teaching Hospital



SCHOOL OF NURSING
UNIVERSITY OF MICHIGAN

Global Health Design Initiative 2018
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Course: (If applicable)

City/Country

- Project Location: Kumasi, Ghana
- This internship took place in the Accident & Emergency (A&E) and Physical Medicine Rehabilitation (PMR) departments at Komfo Anokye Teaching Hospital (KATH), in Kumasi, Ghana.

Other Important Background

There has been a strong partnership of 11 years with the OB/GYN Department at KATH, but this is the first year that the Global Health Design Initiative (GHDI) established a relationship with the ED and PMR departments.



Experience

Information

The main objective during the internship was to conduct a needs assessment in the A&E and PMR departments of KATH. The ultimate goal with the needs assessment was to determine a challenge that would be suitable for a mechanical engineering team from the ME450 course to design a mechanical solution to address the challenge. In addition, in PMR, a hand rehabilitation prototype that a 2017 ME450 team designed was brought and shown to providers at KATH to elicit user feedback, redefine the project definition, and refine user requirements and engineering specifications (URES).

Agency/Community Partner: While at KATH, the team worked closely with the providers at A&E and PMR.

Purpose of Trip: Internship

Outcomes

The team came up with two project definitions for ME450:

1. A way to properly align and support the humeral head in the glenoid cavity and strengthen the shoulder muscles to prevent and correct shoulder subluxation in stroke patients.
 2. A non-invasive method to prevent deep vein thrombosis in low-resource settings.
- URES were also refined for the hand rehabilitation prototype, and a report was written for it as well as the work done in A&E, and the report regarding the needs assessment in PMR is currently in progress.

Skills Utilized/Developed

1. Communicating between interprofessional healthcare providers
2. Performing formal and informal interviews to gather data and elicit user feedback
3. Refining observational skills

Classroom Connections

NURS 421: Perspectives in Global Health

Lessons Learned

Contextual design is incredibly important to the success and implementation of a device, especially in low-middle income countries. The devices have to be made for the setting that they will be used in, otherwise they will not be effective and no improvements will be made.



Career Connections

I see myself pursuing a nursing career in a global health manner. I also had the opportunity to do some observations with the team in OB/GYN, so I am also interested in pursuing maternal health on a global scale due to the efforts made to improve it worldwide.

Advice

Talk and interact with the locals of the community!
Keep an open-minded perspective regarding the environment.
Understand that generally, we will gain much more from the experience than the hosting community will.

ACKNOWLEDGEMENTS

I would like to acknowledge GHDI and its sponsors for making this opportunity possible and the mentors for making it such an enriching experience.

I would also like to acknowledge the team I worked with as well as all the providers at KATH who were gracious with their time in working with us.

