

## Surgical Skills in Mulanje

**Authors :** Nick Toossi, Joseph Hartland

**Abstract :** Background: Malawi is an example of a low resource setting which faces a chronic shortage of doctors and other medical staff. This shortfall is made up for by clinical officers (COs), who are para-medicals trained for 4 years. The literature suggests to improve outcomes surgical skills training specifically should be promoted for COs in district and mission hospitals. Accordingly, the primary author was tasked with developing a basic surgical skills teaching package for COs of Mulanje Mission Hospital (MMH), Malawi, as part of a 4th year medical student External Student Selected Component field trip. MMH is a hospital based in the South of Malawi near the base of Mulanje Mountain and works in an extremely isolated environment with some of the poorest communities in the country. Traveling to Malawi the medical student author performed an educational needs assessment to develop and deliver a bespoke basic surgical skills teaching package. Methodology: An initial needs assessment identified the following domains: basic surgical skills (instrument naming & handling, knot tying, suturing principles and suturing techniques) and perineal repair. Five COs took part in a teaching package involving an interactive group simulation session, overseen by senior clinical officers and surgical trainees from the UK. Non-organic and animal models were used for simulation practice. This included the use of surgical skills boards to practice knot tying and ox tongue to simulate perineal repair. All participants spoke and read English. The impact of the session was analysed in two different ways. The first was via a pre and post Single Best Answer test and the second a questionnaire including likert's scales and free text response questions. Results: There was a positive trend in pre and post test scores on completion of the course. There was increase in the mean confidence of learners before and after the delivery of teaching in basic surgical skills and simulated perineal repair, especially in 'instrument naming and handling'. Whilst positively received it was discovered that learners desire more frequent surgical skills teaching sessions in order to improve and revise skills. Feedback suggests that the learners were not confident in retaining the skills without regular input. Discussion: Skills and confidence were improved as a result of the teaching provided. Learner's written feedback suggested there was an overall appetite for regular surgical skills teaching in the clinical environment and further opportunities to allow for deliberate self-practice. Surgical mentorship schemes facilitating supervised theatre time among trainees and lead surgeons along with improving access to surgical models/textbooks were some of the simple suggestions to improve surgical skills and confidence among COs. Although, this study is limited by population size it is reflective of the small, isolated and low resource environment in which this healthcare is delivered. This project does suggest that current surgical skills packages used in the UK could be adapted for employment in low resource settings, but it is consistency and sustainability that staff seek above all in their on-going education.

**Keywords :** clinical officers, education, Malawi, surgical skills

**Conference Title :** ICGHI 2018 : International Conference on Global Health and Innovation

**Conference Location :** London, United Kingdom

**Conference Dates :** April 24-25, 2018