Hands on Training to Save Lives: Analysis of Skill and Knowledge Change Following Maternal Newborn Simulation Training in Rural Tanzania

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Background

- Globally, acquiring and maintaining critical maternal newborn and child health (MNCH) related clinical skills and knowledge for routine and emergency care remains a challenge.
- Clinical providers in rural Sub-Saharan Africa may lack quality initial training and experience skill attrition while working in remote, isolated facilities with minimal mentorship.
- A new six-day simulation-based (SIM) skills training curriculum has been developed which includes core MNCH standardized modules¹ (Helping Babies Breathe (HBB), Helping Mothers Survive (HMS), **Essential Care for Every Baby** (ECEB)) plus a de novo module (Antenatal Care (ANC)).



Objective

To assess pre/post knowledge and skill status among health workers participating in a six-day MNCH simulation-based workshop.

Methods

- Participant knowledge was assessed pre/post workshop using a written 24-question multiple choice question (MCQ) test covering all modules.
- Participant clinical skills were assessed pre/post workshop using four Objective Structured Clinical Examination (OSCE) stations (i.e. a practical evaluation), each administered by a trained rater.
- OSCE skill raters demonstrated good inter-rater reliability preevaluation (HBB = 0.951, ECEB = 0.914, HMS = 0.959, ANC = 0.852).
- Data management and analysis was performed in SPSS.





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Discussion

- were seen across all modules.

- greatest improvements.
- month follow up assessment.

Conclusion

MNCH in remote Sub-Saharan Africa.

References

Acknowledgements

This work was undertaken with the financial support of the Government of Canada provided through Global Affairs Canada (GAC). Also, this work was carried out with the aid of a grant from the Innovating for Maternal and Child Health in Africa program, a partnership of Global Affairs Canada (GAC) the Canadian Institutes of Health Research (CIHR), and Canada's International Development Research Centre (IDRC). Sincere thanks to our Mama na Mtoto field team, research assistants, and raters. Special thanks to Sylvia Tunka and Anthony Mlila for their efforts in organizing data and workshops.





Overall pre-workshop knowledge and skill scores were low. Significant post-workshop increases in MCQ and OSCE scores

Standardized modules¹ (HBB, HMS, ECEB) showed the highest pre/post increase in scores. ANC (de novo module) had the lowest pre/post increase.

Increasing years of healthcare experience was associated with low pre-workshop knowledge and skill scores and

Individual test scores will guide planning and future training Further study will assess longer-term skill retention at a six

A six-day module-based, hands-on MNCH simulation training workshop has potential to improve clinical provider skills for

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