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The Effectiveness of Blended Multidisciplinary Training Methods for the Management of Obstetric Haemorrhage: The Lessons from London - Mbeya Project in Tanzania

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The Maternal Mortality Rate (MMR) in Tanzania is 524-556 per 100,000 lives which is 78 times higher compared to that of the UK. In Mbeya, only half of the pregnant women receive the minimum standard for obstetric care while maternal deaths are at 776 per 100,000 live births with 68.9% mainly attributed to obstetric haemorrhage.

Methodology: A quasi-experiment of training Health Care Providers (HCP) on the management of Perioperative Obstetric Haemorrhage (POH) that was conducted in the 4 hospitals of Mbeya region. The study aimed at measuring the impact of blended online training and face-to-face with low fidelity simulation mankin-based practice. The Training for management of obstetric haemorrhage used multidisciplinary trainers from London, United Kingdom and Mbeya, Tanzania and multidisciplinary HCP in Mbeya. The HCP were recruited and followed over 8 months while trained for the identification of risks of POH, improvement of POH management and reduction Mortality Rates were measured before training and after training.

Results: A cohort of 34 Health care workers in multidisciplinary teams 11 Obstetricians Anaesthetic Nurse 3 (8.8%), Clinical Officer (Health Assistant) 3 (8.8%), Lab Technician 1 (2.9%), Medical Doctor and Obstetrician 11 (32.4%), Midwife 9 (26.5%), Nurse 4 (11.8%), Sonographer 3 (8.8%). There were proportional change in Obstetrics and Surgical Skills for Obstetric haemorrhage (68.8%), Sonographical skills (57.6%), Anaesthetic skills (69.7%), Blood Transfusion (90.9%) and the combined effect of 100% change with a mean score difference of 0.25 95% CI (0.05 – 0.66). Maternal mortality rates changed from 399 / 100,000 live births to 127/100,000 live births. For death attribution to by obstetric hemorrhage, the mortality were reduced from 95/100,000 live births to 21/100,000 live births.

Conclusion: The multidisciplinary team approach by blended face to face and online training on managing Obstetric Hemorrhage has a potential impact on the reduction of maternal mortality rates when obstetric hemorrhage has been taken into consideration.

Recent publications

- Mbwele B, Ide NL, Mrema JG, Ward S.A.P, Melnick JA, Manongi R. Learning from health care workers'opinions for improving quality of neonatal health care in Kilimanjaro region, northeast Tanzania. Annals of Medical and Health Sciences Research, 2014 Jan, 4, (1):105-114 doi: 10.4103/2141-9248.126614
- 2. Mbwele B. Assessing the quality of the management skills required for lower respiratory tract infections in Kilimanjaro, Tanzania, Health, 2014 Jan 7; 6 (1):15-26 doi: 10.4236/health.2014.61004
- 3. Mbwele B, Reddy E, Reyburn H. A rapid assessment of the quality of neonatal healthcare in Kilimanjaro region, northeast Tanzania. BMC Pediatrics. 2012 Nov 21; 12(1):182. doi:10.1186/1471-2431-12-182





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Biography

In 2009 to 2011 he was trained for Masters of Science in Clinical Research where he was the best performer in academic research. he worked for Quality of neonatal care in Kilimanjaro region using qualitative and quantitative approaches with experts from London School of Hygiene and Tropical Medicine, LSHTM and Duke University at KCMC. He found a local NGO, Vijiji International with a special database for reducing reproductive health burdens in the densely populated Maasai communities. In 2012 he was Trained by the Institute for Quality of Health Care at Radboud Medical University, Nijmegen, The Netherlands for Quality Improvement in Infectious diseases. Currently, he is working with Christian Social Services commission (CSSC) as a Continuous Quality Improvement Specialist and Clinical Team Lead for HIV/AIDS care and treatment program. He oversees clinical Quality improvement in 96 CTC sites and 322 PMTCT sites in Mwanza, Geita and Rorya District on Mara region. Dr Mbwele, successfully worked for development of a Guideline for stepwise certification of towards accreditation of Health Care facilities using SAFE CARE standards in collaboration with the Ministry of Health and PharmAccess.