**An evaluation of the effectiveness of an updated midwifery curriculum in Kenya: a cluster randomised controlled trial**

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**Introduction**

Midwifery interventions can avert two-thirds of maternal and perinatal deaths. The WHO and ICM standards and core competencies for quality midwifery education and practice are available. However, deficient midwifery training curriculum and incompetent midwifery educators affect the quality of midwifery graduates as skilled health personnel. This study assessed whether training and mentoring improves knowledge and the quality of teaching of midwifery educators to deliver an updated EmONC-enhanced curriculum in Kenya.

**Methods**

A cluster randomised controlled trial (<https://doi.org/10.1186/ISRCTN14203188>) in 20 midwifery colleges (8 randomised to intervention and 8 to control and 4 assigned to intervention). Educators in both arms received training in teaching/EmONC skills to deliver the updated curriculum, with those in the intervention arm receiving additional support mentoring every three months after training for 12 months. Educators’ knowledge and confidence in EmONC/teaching skills was assessed before and after training and at 3, 6, 9 and 12 months. Teaching skills observations at baseline and endline in both study arms were also assessed using a checklist. Knowledge, confidence and three selected EmONC practical skills among a systematic random sample of final year midwifery students were assessed after completion of the midwifery modules. Non-parametric tests and linear mixed effects models were used to explore differences in scores of educators and students between study arms with random effect for cluster (colleges).

**Results**

Intervention arm had 45 educators and 91 students while control had 29 educators and 55 students in the study. Twenty-one and 26 teaching sessions were observed at baseline and endline respectively.

Overall, immediate post-training educators’ knowledge (61.3% to 73.3%, p<0.001) and confidence to teach EmONC (3.1 to 4.2 out of 5, p<0.001) improved. No evidence of a difference in either knowledge or confidence was detected for quarter or study arm (p>0.05). The observed teaching skill scores of educators in the intervention arm were significantly higher compared with those of controls at endline (mean difference, 16.5; 95%CI, 3.2-29.8, p=0.02).

Scores for students in the intervention arm were significantly higher than those in controls for knowledge (mean difference, 8.3 [1.6-15.0]) and the three skills assessed (mean difference (95%CI): 22.4 (10.8-33.9) for shoulder dystocia, 17.9 (2.0-33.9) for newborn resuscitation and 17.0 (8.0-26.0) for maternal resuscitation.

**Conclusion**

Knowledge and confidence of educators in teaching EmONC was improved immediately after training. Follow-up mentoring was an effective intervention to sustain/improve the quality of educators’ EmONC teaching skills and students’ performance in knowledge and skills in EmONC.