

EP09.46 Basic ultrasound training for nurses at primary healthcare levels in Kenya

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BACKGROUND

Access to antenatal ultrasound remains limited in rural and low-resource settings. Task-sharing basic obstetric point-of-care ultrasound (POCUS) to nurses may expand access to essential antenatal imaging at primary healthcare level.

OBJECTIVE

Evaluate the effectiveness and sustainability of a basic obstetric POCUS training programme for nurses in rural Kenya.

METHODS

32

Nurses

14

Facilities

2

Sub-counties

3

Weeks

Three-week blended programme

- Didactic lectures, hands-on scanning and supervised practice
- Pre/post MCQs and Direct Observation of Procedural Skills (DOPS)
- Supportive supervision and trainee feedback

KIRKPATRICK EVALUATION

Reaction → Learning → Behaviour → Results

RESULTS — KIRKPATRICK MODEL

1

REACTION

High satisfaction

Trainees reported high satisfaction with programme content and delivery.

2

LEARNING

81% theory | 66.2% practical

Strong knowledge and skill acquisition after training.

3

BEHAVIOUR

Clinical application confirmed

Supportive supervision demonstrated appropriate clinical application; some nurses required refresher support.

4

RESULTS

>3,800 obstetric scans

Performed during the first year after training.

4-YEAR FOLLOW-UP

~20 / 32

Nurses continued performing obstetric ultrasound four years after training

IMPLEMENTATION LESSONS

1

Competency can be achieved

Focused training enabled nurses to acquire and apply basic obstetric ultrasound skills.

2

Supervision remains essential

Some providers required refresher support after training.

3

Training must translate into service

High scan volumes demonstrated movement from training into routine clinical practice.

4

Sustainability needs support

Continued scanning at four years suggests sustained integration within a supported program.

CONCLUSION

Task-sharing basic obstetric POCUS to nurses in low-resource primary healthcare settings is feasible and effective, with evidence of sustained clinical use.

The model shows strong potential for national scale-up to support access to at least one ultrasound before 24 weeks' gestation and strengthen maternal healthcare systems.

KEY MESSAGE: Training + competency assessment + supportive supervision + refresher support can enable sustained task-shared obstetric POCUS delivery.