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Training for Emergency Obstetric Conditions – Multiple Choice Answers for Vol. 29, No. 8

1. a) F b) F c) T d) F e) T

The Kirkpatrick model of programme evaluation is a system for evaluating training programmes according to four levels of training achievements. The first two levels refer to the reaction of training participants (satisfaction after training) and the knowledge and skills learning of the trainee. The third level measures the implementation or application of learned skills and behaviour in clinical practice. The fourth level relates to the patient effect of training assessed by measurable clinical outcomes. Most training courses do not go beyond measuring participant satisfaction and individual learning. Levels 3c and 4 of the revised Kirkpatrick levels measure beyond individual performance or perceptions and are linked to the performance of the team. Level 4c is the 'gold standard' for an efficient EmONC training programme and refers to the impact of training on patient outcomes in terms of reducing in mortality, morbidity and adverse events.

2. a) F b) T c) F d) F e) T

All the prominent available EmONC training packages referred to in the papers covered by the review had been developed in high-income countries and were adapted for use in low- and middle-income countries. Emergency drills with scenarios for simulating emergencies have shown to be effective in enhancing teamwork and team communication. Teamwork training has been associated with a reduction in morbidity and/or mortality in some studies, but a randomised controlled trial conducted by Nielsen and colleagues in the United States in which a crew-resource management (CRM) approach had been used did not show a significant difference in the adverse outcomes index (AOI) between the intervention and control hospitals. The Simulation and Fire-drill Evaluation (SaFE) study concluded that there was no advantage training at a high-fidelity simulation centre (offsite) instead of training onsite using low-fidelity models and patient-actors. At institutional level, regular 'in-house' refresher training sessions that include emergency drills have been shown to be effective for maintaining quality of care over time. The SaFE study recommended annual updating for training participants proficient in the management of shoulder dystocia, with more frequent rehearsals for non-proficient performers.

3. a) F b) T c) F d) T e) T

Five randomised controlled trials (RCTs) were included in the review and three of them measured impact on Level 4b and/or 4c of the Kirkpatrick model. In high-income countries, where many standard obstetric-care practices are assumed to be in place, the main focus is on reducing process errors for further improving patient safety, reducing morbidity and minimising litigation. In low- and middle-income countries, the training focus is on improving capacity and providing safe clinical skills to

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directly reduce maternal and neonatal mortality and morbidity. Drayott and colleagues reported a 50% reduction in hypoxic-ischaemic encephalopathy (HIE) after training, whereas an abstract on an Americanised PROMPT study also reported a significant reduction in perinatal HIE. Two papers and the American abstract reported on the decrease of brachial plexus injury after training with mannequins. Training does not take place in a vacuum and are often accompanied by other clinical initiatives directly related to improving obstetric care in the form of continuous quality improvement and the introduction of clinical-governance interventions. A systematic review found that single interventions (e.g. training without improvement in services) did not really make a difference in the reduction of maternal mortality in resource-limited countries. Training on its own may therefore not always change practice or have the desired effect. Institutions and health authorities should investigate simple ways of how best to integrate other context-specific initiatives into a multifaceted training package.

4. a) T b) F c) F d) T e) T

Training if done properly contributes to behavioural changes in both high- and low-income countries. The Simulation and Fire-drill Evaluation (SaFE) study concluded that there was no advantage training at a high-fidelity simulation centre (offsite) instead of training onsite using low-fidelity models and patient-actors. In low- and middle-income countries EmONC training is donor funded and there is little evidence of internally initiated efforts of embedding training packages in the health system as part of normal in-service training and practice. In planning a training package quality assurance and monitoring and evaluation mechanisms should be built-in features. At institutional level measures to monitor and ensure mandatory attendance of training should also be in place. In the United Kingdom, annual obstetric skills training is required, a recommendation endorsed by the SaFE study.

5. a) T b) F c) F d) F e) F

Uterine displacement improves venous return by relieving aorta-caval compression. Chest compressions should be performed 2–3 cm higher than the inter-nipple line for a woman in the 3rd trimester due to the anatomical changes that occur. This is a witnessed cardiac arrest. Defibrillation should occur as soon as possible. The CD should be done in the maternity unit to have any benefit. Transferring to the OT wastes time and the benefit of the 4-5 minute window is lost. Intubate early in a pregnant woman to protect and secure the airway.

6. a) F b) F c) F d) T e) F

The best way to improve performance is to ask staff to reflect on their performance by providing constructive feedback and encouraging interaction. The better way is to get staff to do the skills and facilitate their improvement by mentoring the skill. Emergency equipment issues need to be dealt with as a matter of urgency and this must be communicated to the managers responsible as soon as possible. Repeating the fire-drill improves confidence and develops competence.

7. a) F b) F c) T d) F e) F

Evidence shows that debriefing following an event is not beneficial, and can even be harmful after traumatic events. Maternity staff should explain what is happening during the emergency. SBAR is a structured handover tool which stands for Situation, Background, Assessment and Recommendation. Closed-loop communication should minimise misunderstandings, ensuring that information and allocation of tasks is appropriately interpreted and acted upon. The leader should be the member of the team with the most experience of the emergency, not necessarily the most senior. Ideally, leaders will be aware of the capabilities of each team member prior to the emergency. However, if unknown, briefly stopping to clarify what team members can and cannot do is advisable.