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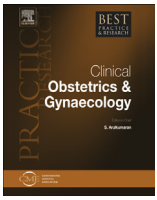

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Myths and realities of training in obstetric emergencies

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Training for intrapartum emergencies is a promising strategy to reduce preventable harm during birth; however, not all training is clinically effective. Many myths have developed around such training. These principally derive from misinformed beliefs that all training must be effective, cheap, independent of context and sustainable.

The current evidence base for effective training supports local, unit-based and multi-professional training, with appropriate mannequins, and practice-based tools to support the best care. Training programmes based on these principles are associated with improved clinical outcomes, but we need to understand how and why that is, and also why some training is associated with no improvements, or even deterioration in outcomes.

Effective training is not cheap, but it can be cost-effective. Insurers have the fiscal power to incentivise training, but they should demand the evidence of clinical effect; aspiration and proxies alone should no longer be sufficient for funding, in any resource setting.

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Introduction

Improving maternal and perinatal care and reducing preventable intrapartum harm in particular is a global priority. Improved training for intrapartum care is at least part of the potential solution; however, we must ensure that training is both effective and sustainable.

More and better training for obstetric emergencies have been almost ubiquitous recommendations in national reports identifying intrapartum preventable harm from continents across the world [1–8], in reports of increasing litigation costs [9,10], by national guidelines [11,12] and in clinical jeremiads [13].

These recommendations have generated a huge variety of local solutions and courses with variable degrees of evaluation ranging from aspirational association with general educational principles and 'hope' that there will be a positive effect, through local tests of knowledge and skill, up to clinical evaluation of outcomes. An excellent and extremely comprehensive review of the current landscape of obstetric emergency training [14], and their impact has been recently published, and we will not repeat it. In this article, we will review some of the current myths that have grown up around training for obstetric emergencies so that maternity carers can engage with the most clinically useful and cost-effective training to provide the best possible outcomes for mothers and babies across the world.

Myth 1: Training must be effective

The history of evidence-based obstetric care is littered with well-intentioned, biologically plausible interventions, which when robustly investigated turn out to do more harm than good, for example, X-ray pelvimetry for previous cephalo-pelvic disproportion and high-dose vitamins C and E to prevent pre-eclampsia, amongst others. Training should be similarly evaluated.

All obstetric emergency training programmes are well intentioned, and most are based on national or international guidance, but there are now important and robust data where training was not associated with improved clinical outcome [15–17], or it was associated with an increase in perinatal morbidity: the rate of neonatal injury doubled in the decade after training was introduced in Oxford [18], and a recent cluster randomised trial from the Netherlands demonstrated a trebling of hypoxic neonatal injury in units allocated to training compared with control units with no training [19]. These are alarming and counter-intuitive data, but they are extremely important.

There are also reports where training was associated with decreases in knowledge and confidence from immediately post course to 6 weeks post course for many of the emergency situations measured [20].

Furthermore, this is no less the case in low resource settings where a failure of most studies to underpin their results with adequate evidence precludes valid pronouncements on the effectiveness of the courses described [21].

Therefore, training is not magic, and nor is it automatically effective. Furthermore, the success of training depends on keeping mothers and babies safe, and not on achieving improvements in written test scores. We need a mature debate about the active ingredients of effective training.

A review of effective training for obstetric emergencies published in 2009 [22] concluded that many of the courses then reviewed had common features: institution-level incentives to train, multi-professional training of all staff in their units, teamwork training integrated with clinical teaching and the use of high-fidelity simulation models.

These themes have been reiterated in two more recent reviews for obstetric training [14,23], one of which concluded that all maternity and neonatal health professionals should attend in-service training sessions. Furthermore, on-site 'in-house' training with low-tech, highly realistic models is more readily implementable than off-site training at simulation centres, and training integrated into institutional clinical governance and quality-improvement initiatives is likely to have better results. Finally, there must be some form of quality assessment of the training to ensure that it meets minimum standards [14].

Notably, multi-professional training has also been identified in similar training programmes outside obstetrics [24], in quality-improvement programmes [25] and as a feature of high-reliability

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