

Letter to the Editor, BJOG

Title: Holistic view of training of intrapartum fetal monitoring and importance of its content.

Re: Kelly S, Redmond P, King S, Oliver-Williams C, Lame G, Liberati E et al. Training in the use of intrapartum electronic fetal monitoring with cardiotocography: systematic review and meta-analysis. BJOG 2021; <https://doi.org/10.1111/1471-0528.16619>.

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Dear Editor,

The scholarly systematic review by Kelly et al¹ using sophisticated methodology and data-processing may leave clinicians puzzled if not demoralised. Kelly and co-workers¹ after examining 64 studies and 13 randomised-controlled-trials (RCTs) inform obstetricians that there is failure to demonstrate meaningful evidence that training of intrapartum fetal monitoring (IFM) works, amounting to a crisis. Can't practically useful conclusions be drawn from five RCTs of reasonable quality (showing benefit)? Achieving Kirkpatrick-level-4 showing IFM training improves patient outcomes seems mostly impractical given that the benefits of IFM itself remain unproven. IFM is a complex clinical activity unlike training in mathematics or other hard sciences. Focussed studies on specific issues of training or new ideas would of course be practical and welcome/desirable.

The PROMPT-group² deserves huge credit for a major ground-breaking work in establishing 'multidisciplinary-team-based-skills-drill-training' in obstetrics world-wide. The review¹ briefly mentions the content of training; the scientific validity of which seems more important for outcomes and litigation. Probably, the only high-quality study of IFM training and practice shown to improve perinatal outcomes dates back to 1998 – 2003.² Following introduction of the PROMPT training courses, 5-minute Apgar scores of ≤ 6 decreased from 8.6 to 4.4 / 1,000 births ($P < 0.001$) and HIE (all grades) decreased from already very low of 2.7 to 1.3 /

1,000 births ($P = 0.032$).² Importantly, these training courses taught the contemporary UK-wide practice of truthful pattern-recognition of centrally important fetal heart rate decelerations as “majority early (benign-reflex like head-compression) and minority variable (cord-compression)”.³ Cardiotocography (CTG) was not deemed a mess before 2007 in UK.³ In contrast, the British guidelines in 2007 enforced an untruthful unscientific pattern-recognition of “no early and almost all variable decelerations”; shown to detect only 45% of acidemic babies even on retrospective expert review of CTGs, dropping to 30% under practice conditions.³ The “Each Baby Counts, 2020”⁴ report shows that after a decade of escalating training, resources and practice-improvements, the incidence of severe brain injury is 1.3/1000 births, worse than 1.2/1000 in 2015 (these are still enviable figures for most countries). Moreover, HIE of all grades would be expected at least three times that, a far worse outcome compared to 1998 – 2003.² The birth-attendants describe having to resort to “reverse CTG interpretation” over-riding their training, something unheard before 2007.³ That seems the crisis.

The review¹ states its main conclusion as, “Awaiting better data, CTG-training should follow the evidence-base for maternity training: local, multi-professional with integrated teamworking and support-tools”. Most British hospitals previously did hold half-day comprehensive IFM training sessions as local team-based activity like the PROMPT study,² but have moved away from these in recent years, specifically pertaining to IFM training. Notwithstanding the conclusion¹, most birth-attendants are now mandated to complete web-based IFM training-modules once a year individually commonly in the comfort of their homes. Most British hospitals have pragmatically adopted these centralised comprehensive on-line IFM training programmes because of several obvious practical and quality advantages; and are not seeking ‘high-quality’ studies proving superiority of such training or perinatal outcomes, whether realistic or not.

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References:

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