

An Evaluation of the Efficacy of an Intervention Incorporating Precision Teaching to Train Infantile Lumbar Puncture Among Senior House Officers

Chloe Walsh¹, Bronwyn Reid-McDermott², Sharon Dempsey², Ethel Ryan², Sinéad Lydon¹, Paul O'Connor¹ & Dara Byrne²

¹National University of Ireland, Galway

²University Hospital Galway

Rationale

- Lumbar Puncture for cerebrospinal fluid (CSF) is a routine task in the evaluation of fever and sepsis in infants.
- Traumatic lumbar puncture (“bloody tap”) occurs in 20% of paediatric procedures.
 - non-diagnostic tap;
 - extra time spent in hospital;
 - over-prescription of antibiotics.
- A simulation-based intervention incorporating repeated timed practice with corrective feedback and precision teaching (PT) was applied in order to achieve behavioural fluency in the performance of infantile lumbar puncture.



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Methods



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Findings



- To date, participants (n = 11) have required an average of 4.83 trials and 88.8 minutes to reach fluency in the skill (100% accuracy within 19.53 minutes).
- Trials have begun, on three further conditions, to assess whether fluency 1) is maintained over time, 2) is stable in the presence of distraction, and 3) transfers to the clinical environment.
- Study is on-going but preliminary data support the application of this simulation-based intervention.

