Impact of an Immersive Virtual Reality Curriculum on Medical Students’ Clinical Assessment of Infants With Respiratory Distress

**STUDY QUESTION**
Does exposure to a virtual reality curriculum on pediatric respiratory distress improve medical students’ recognition of impending respiratory failure?

**VIRTUAL REALITY IN #MEDED?**
Virtual reality is a technology that has been successfully used in the military and aviation. It has been studied as a viable approach to communication training in pediatrics however, such technology has not been used for clinical assessment training to date.

**STUDY POPULATION**
Third year medical students on their pediatrics rotation (n = 168)

**STUDY LOCATION**
Cincinnati Children’s Hospital Medical Center

**STUDY DESIGN**
Randomized, controlled, prospective study

**RANDOMIZATION**
All students received standard training on respiratory distress through didactics and high-fidelity mannequin simulation.

**INTERVENTION**
Students underwent 30-min immersive VR curriculum, with three simulations of an infant with 1) no distress, 2) respiratory distress, and 3) impending respiratory failure.

**OUTCOMES**
Significant differences between intervention and control:
- Consideration/interpretation of mental status (p < 0.01)
- Appropriate respiratory status assessment (p < 0.01)
- Recognition of a need for escalation of care (p = 0.0004)