

Improving Confidence in Management of Maternal Cardiac Arrest through Simulation

Emily Guernsey, BS; Luke Detlor, BS; Gillian Wright, MD; Sarah Nizamuddin, MD; Recia Frenn, MD

BACKGROUND

- Maternal cardiac arrest (MCA) is rare but devastating, occurring in approximately 1 in 9000 deliveries
- Given its low incidence, additional training for Labor & Delivery (L&D) staff is needed to ensure rapid response to MCA
- Simulation is an important tool for improving knowledge, teamwork, and confidence in responding to uncommon obstetric emergencies

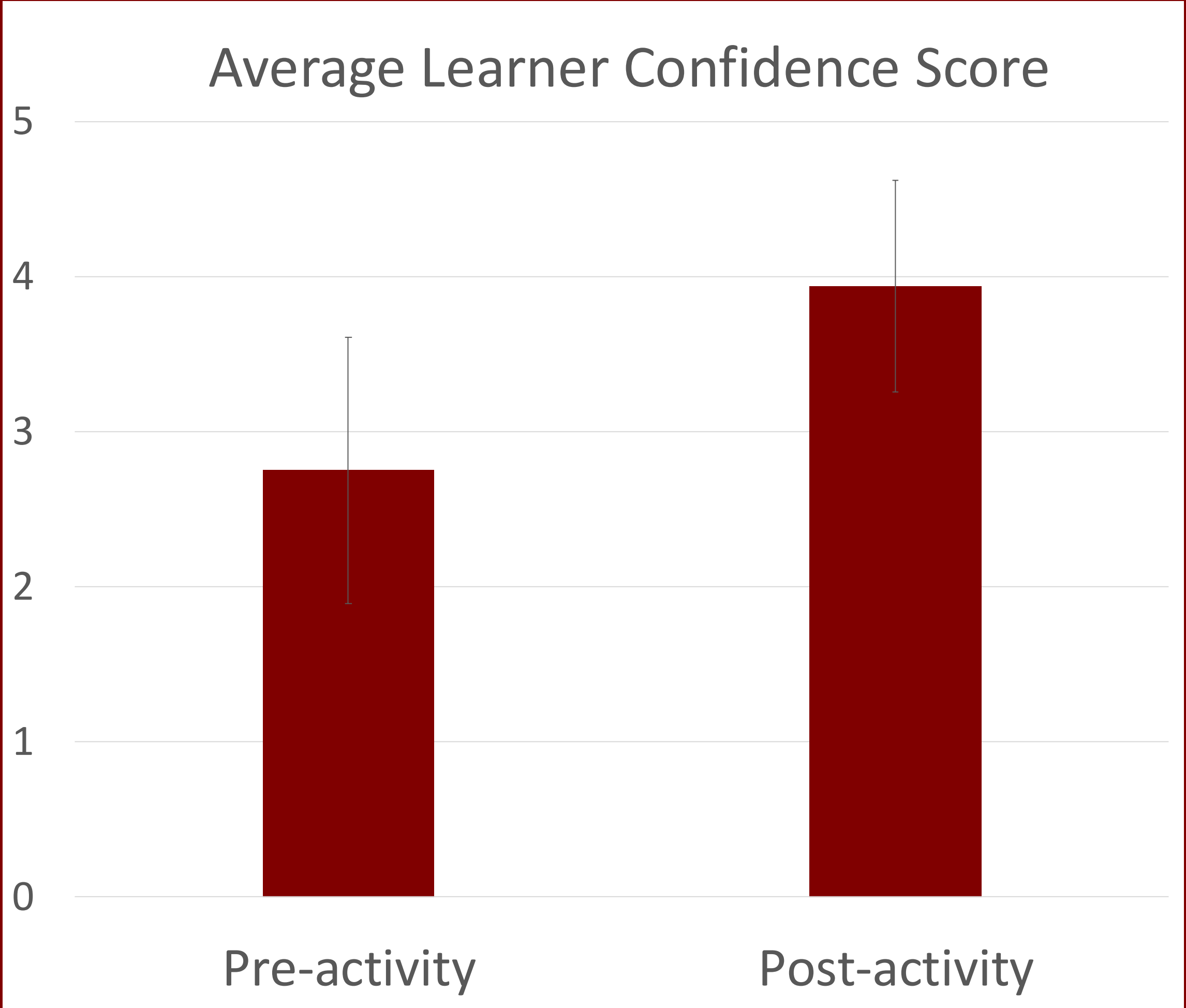
OBJECTIVES

- To develop a training video for OB providers responding to MCA before the code team arrives
- To assess the effectiveness of the training video and simulation in improving self-reported confidence in managing MCA

SIMULATION MATERIALS

- Simulation took place in a typical labor room
- A low fidelity pregnant mannequin, crash cart, AED, medications, and surgical instruments (C-section tray + scalpel) were available

Pairing a **training video** and **simulation** activity **increases** interdisciplinary staff **confidence** in initial management of MCA.



METHODS

- An 8-minute MCA simulation educational video was created
- L&D staff viewed the video and participated in a live simulation after an ‘OB emergency’ alert was initiated
- Pre-activity: one question survey rating confidence in performing their role in managing MCA on a 5-point Likert scale
- Post-activity: two-question survey rating confidence in performing role in managing MCA and usefulness of activity on a 5-point Likert scale
- Pre- and post-activity confidence scores were compared using a paired t-test ($\alpha=0.05$)

RESULTS

- 16 L&D team members participated, including attending and resident physicians in OB/GYN and Anesthesiology, nurses, and technicians
- Mean confidence scores increased from 2.75 ± 0.86 to 3.94 ± 0.68 ($p < 0.001$)
- Usefulness of the video and simulation was rated highly at 4.75 ± 0.45

CONCLUSIONS

- Pairing a high-yield instructional video with a simulation activity is an effective strategy for improving confidence among staff managing rare obstetric emergencies
- Future work will focus on the impact of this learning activity on knowledge acquisition and effective teamwork



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Scan to watch the instructional video

